

CY 1989 ESTIMATED
WATERBORNE COMMERCE STATISTICS

NATIONAL TOTALS
AND
INLAND WATERWAYS

COASTAL ZONE
INFORMATION CENTER

U.S. Army Corps of Engineers
Navigation Data Center
Waterborne Commerce Statistics Center
30 June 1990

HE
745
.U6
C9
CY1989
1990

U.S. Army Corps of Engineers / Navigation Data Center
HE745.U6C9 CY1989 1990

INTRODUCTION

CY 1989 is the first data year for which the Waterborne Commerce Statistics Center (WCSC) has calculated estimates. The foreign import/export estimates were furnished by the Bureau of the Census. The domestic estimates are based on CY 1989 data sent to the WCSC by vessel operating companies. Both the foreign and domestic data sets are subject to correction.

Waterway estimates are based on correlations between Lock Performance Monitoring System (LPMS) tonnages collected at the locks and waterborne commerce tonnages provided to WCSC by vessel operating companies for calendar years 1982 to 1988. CY 1989 LPMS tonnages are then used to estimate CY 1989 waterborne commerce statistics.

The purposes of providing these statistics are twofold:

1. To provide timely CY 1989 estimates for the nation and for major waterways.
2. To solicit your feedback concerning the adequacy and presentation style of the CY 1989 estimates. Comments should be sent to:

Thomas G. Mire
Chief, Products & Services Office
Waterborne Commerce Statistics Center
P.O. Box 61280
New Orleans, Louisiana 70161-1280

The commodity groups are explained in Appendix A.

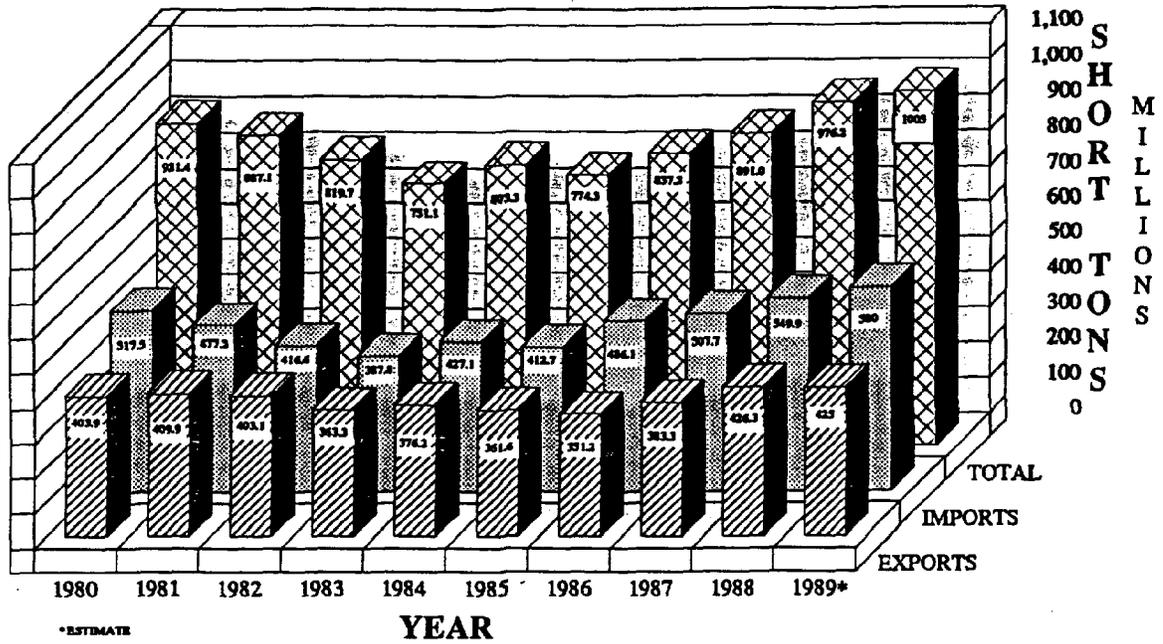
TABLE OF CONTENTS

<u>Table/Graph</u>	<u>Page(s)</u>
Introduction	iv
Foreign Waterborne Imports and Exports (1980 - 1989)	1
Domestic Waterborne Commerce of the U.S. - By Type of Traffic (1980 - 1989)	1
Total of Selected Waterways (1982 - 1989)	2
Mississippi River - Minn. to Mouth, Total (1982 - 1989; By Commodity, Domestic Only)	3
Mississippi River - Minn. to Mouth, Downbound (1982 - 1989; By Commodity, Domestic Only)	4
Mississippi River - Minn. to Mouth, Upbound (1982 - 1989; By Commodity, Domestic Only)	5
Ohio River - Total (1982 - 1989; By Commodity)	6
Ohio River - Downbound (1982 - 1989; By Commodity)	7
Ohio River - Upbound (1982 - 1989; By Commodity)	8
Allegheny River - Total (1982 - 1989; By Commodity)	9
Allegheny River - Downbound (1982 - 1989; By Commodity)	10
Allegheny River - Upbound (1982 - 1989; By Commodity)	11
Monongahela River - Total (1982 - 1989; By Commodity)	12
Monongahela River - Downbound (1982 - 1989; By Commodity)	13
Monongahela River - Upbound (1982 - 1989; By Commodity)	14
Kanawha River - Total (1982 - 1989; By Commodity)	15
Kanawha River - Downbound (1982 - 1989; By Commodity)	16
Kanawha River - Upbound (1982 - 1989; By Commodity)	17
Cumberland River - Total (1982 - 1989; By Commodity)	18
Cumberland River - Downbound (1982 - 1989; By Commodity)	19
Cumberland River - Upbound (1982 - 1989; By Commodity)	20

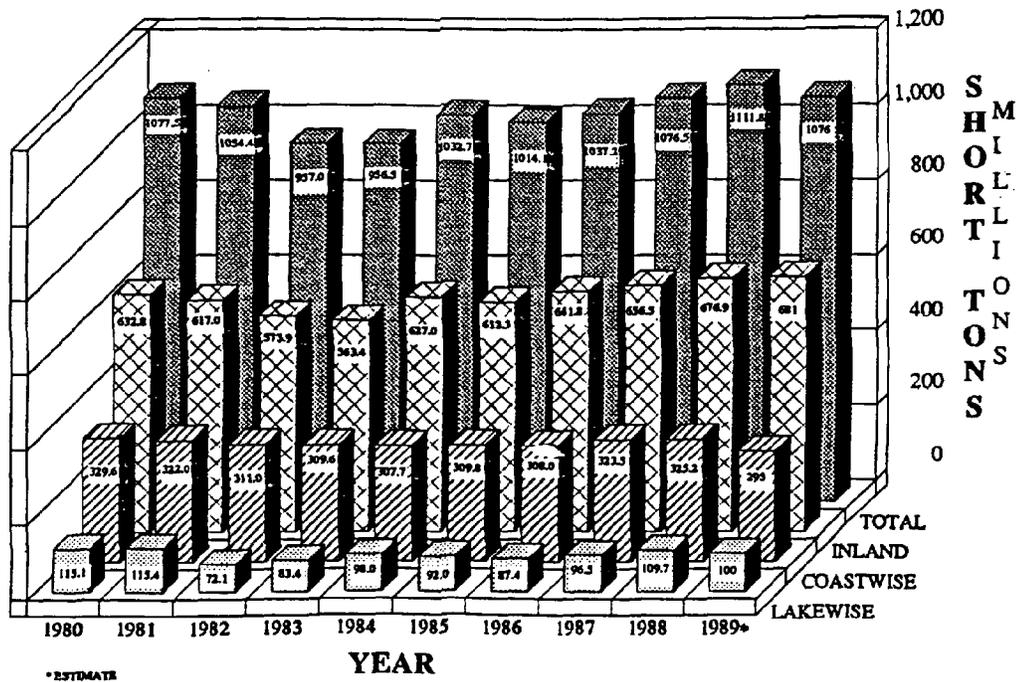
<u>Table/Graph</u>	<u>Page(s)</u>
Tennessee River - Total (1982 - 1989; By Commodity)	21
Tennessee River - Downbound (1982 - 1989; By Commodity)	22
Tennessee River - Upbound (1982 - 1989; By Commodity)	23
Tennessee-Tombigbee Waterway - Total (1985 - 1989; By Commodity)	24
Tennessee-Tombigbee Waterway - Southbound (1985 - 1989; By Commodity)	25
Tennessee-Tombigbee Waterway - Northbound (1985 - 1989; By Commodity)	26
Black Warrior River - Total (1982 - 1989; By Commodity)	27
Black Warrior River - Downbound (1982 - 1989; By Commodity)	28
Black Warrior River - Upbound (1982 - 1989; By Commodity)	29
Alabama - Coosa River - Total (1982 - 1989; By Commodity)	30
Alabama - Coosa River - Downbound (1982 - 1989; By Commodity)	31
Alabama - Coosa River - Upbound (1982 - 1989; By Commodity)	32
Illinois Waterway - Total (1982 - 1989; By Commodity)	33
Illinois Waterway - Downbound (1982 - 1989; By Commodity)	34
Illinois Waterway - Upbound (1982 - 1989; By Commodity)	35
McClellan - Kerr Waterway - Total (1982 - 1989; By Commodity)	36
McClellan - Kerr Waterway - Downbound (1982 - 1989; By Commodity)	37
McClellan - Kerr Waterway - Upbound (1982 - 1989; By Commodity)	38
Gulf Intracoastal Waterway - Total (1982 - 1989; By Commodity)	39
Gulf Intracoastal Waterway - Westbound (1982 - 1989; By Commodity)	40
Gulf Intracoastal Waterway - Eastbound (1982 - 1989; By Commodity)	41

<u>Table/Graph</u>	<u>Page(s)</u>
Apalachicola River - Total (1982 - 1989; By Commodity)	42
Apalachicola River - Downbound (1982 - 1989; By Commodity)	43
Apalachicola River - Upbound (1982 - 1989; By Commodity)	44
Atlantic Intracoastal Waterway - Total (1982 - 1989; By Commodity)	45
Atlantic Intracoastal Waterway - Southbound (1982 - 1989; By Commodity)	46
Atlantic Intracoastal Waterway - Northbound (1982 - 1989; By Commodity)	47
Columbia River - Total (1982 - 1989; By Commodity)	48
Columbia River - Downbound (1982 - 1989; By Commodity)	49
Columbia River - Upbound (1982 - 1989; By Commodity)	50
Snake River - Total (1982 - 1989; By Commodity)	51
Snake River - Downbound (1982 - 1989; By Commodity)	52
Snake River - Upbound (1982 - 1989; By Commodity)	53
Appendix A	54

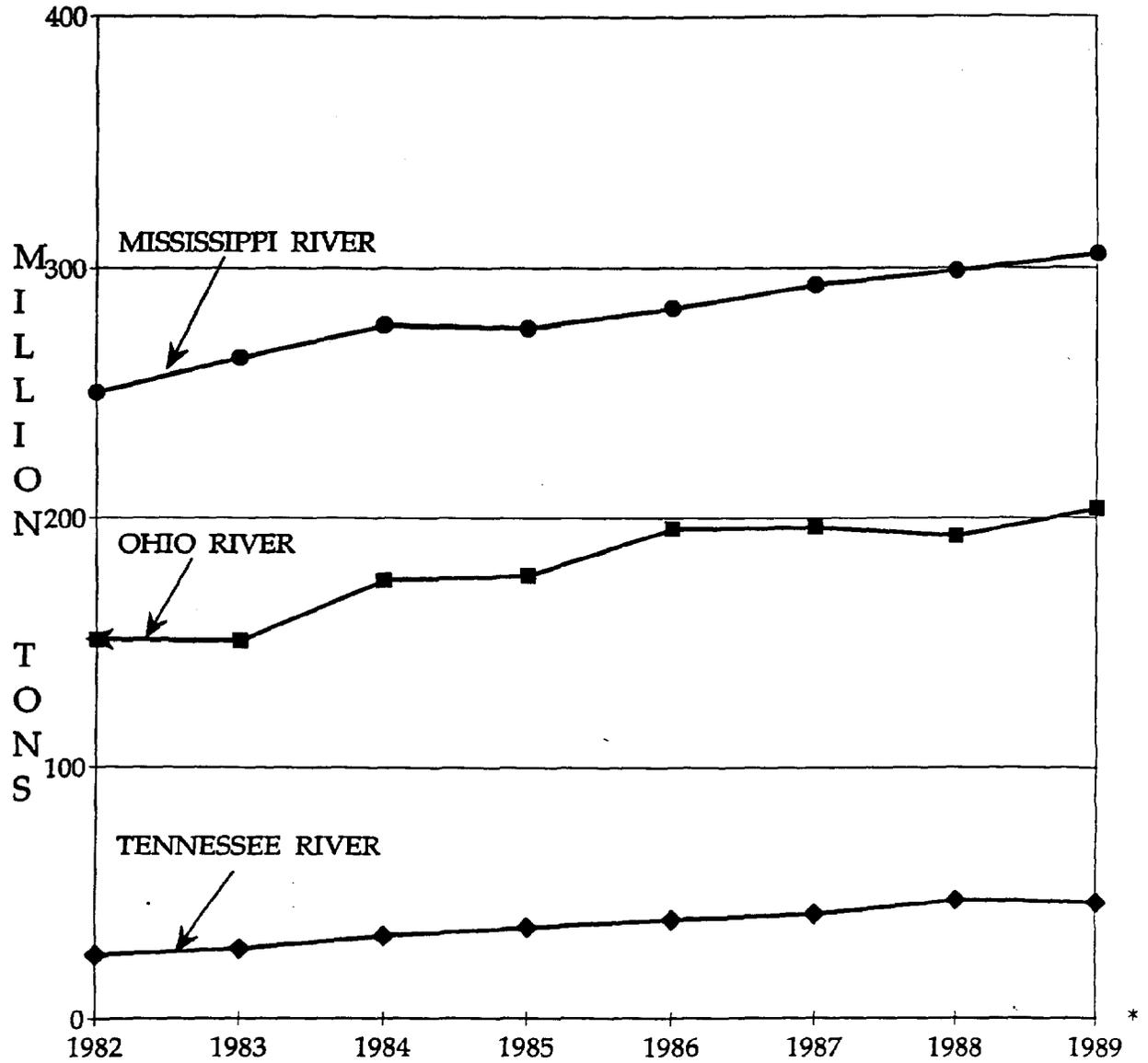
FOREIGN WATERBORNE IMPORTS AND EXPORTS 1980-1989



DOMESTIC WATERBORNE COMMERCE OF THE U.S. BY TYPE OF TRAFFIC 1980-1989

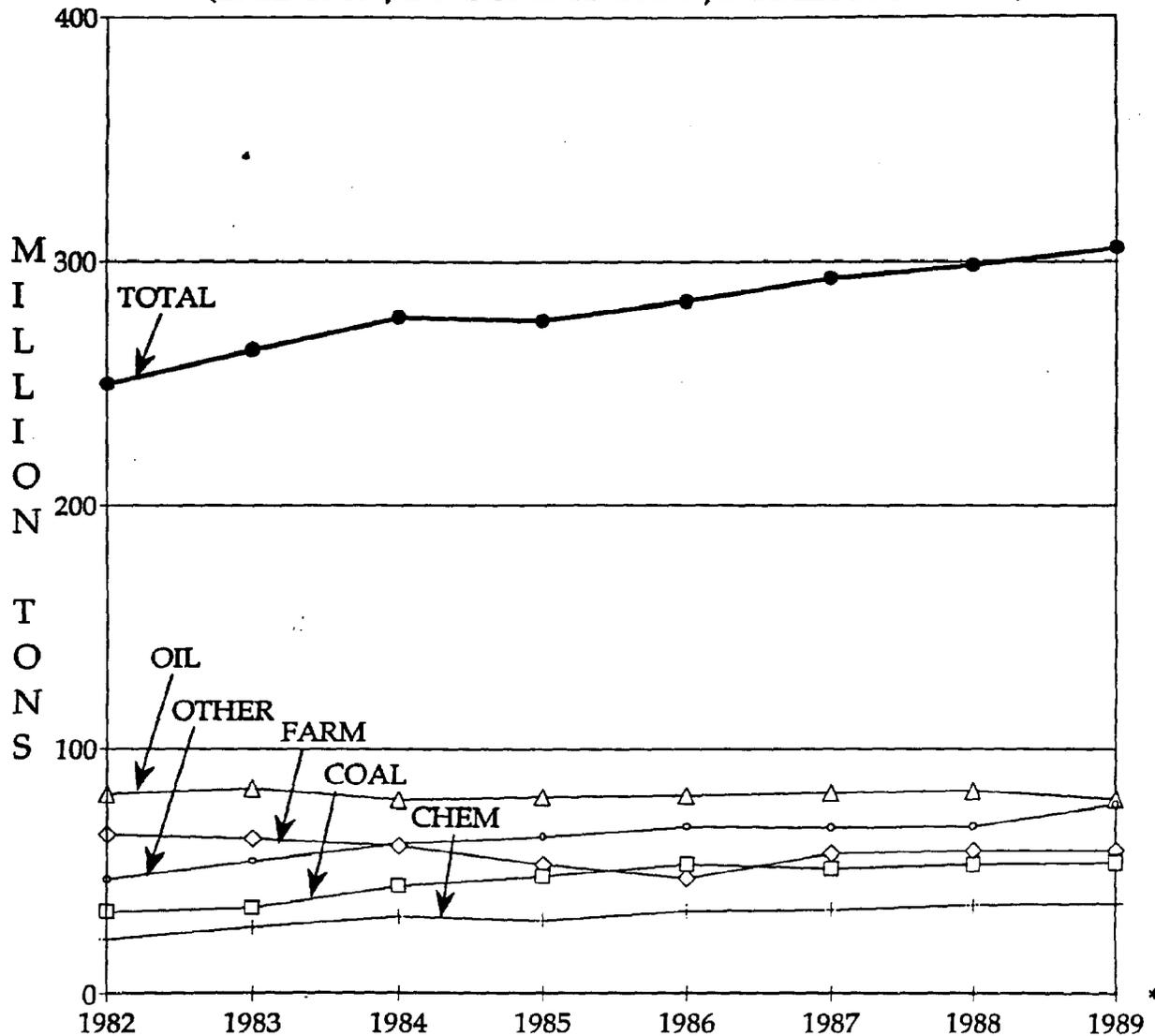


TOTAL OF SELECTED WATERWAYS (1982 - 1989)



YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
MISS	250.13	264.05	277.28	275.91	283.72	293.23	298.76	305.59
OHIO	150.63	150.38	174.91	176.80	195.71	196.37	192.59	203.63
TENN	25.51	27.99	33.20	36.48	39.59	41.71	47.10	46.12

MISSISSIPPI RIVER - MINN. TO MOUTH - TOTAL (1982-1989 ; BY COMMODITY ,DOMESTIC ONLY)



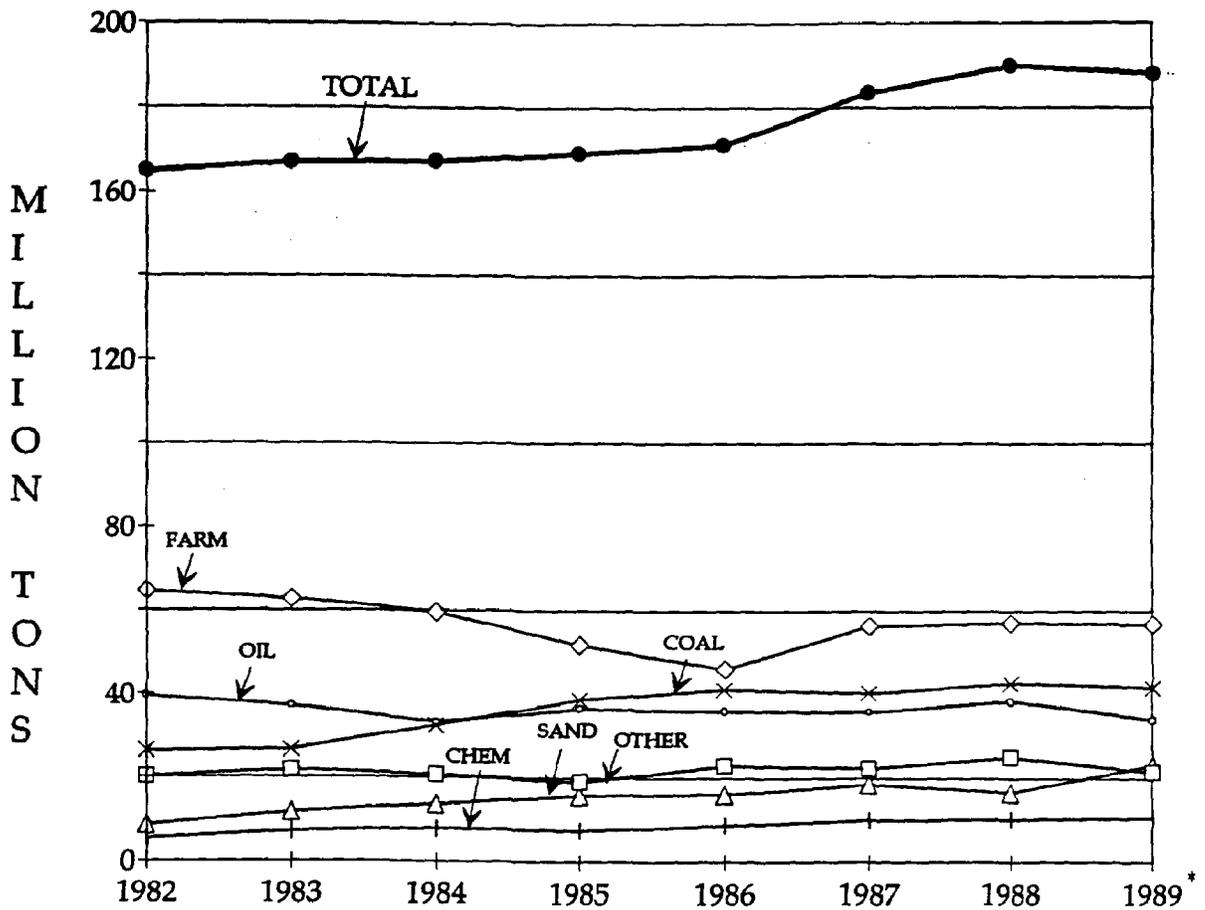
YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	250.13	264.05	277.28	275.91	283.72	293.23	298.76	305.59
OIL	81.68	83.88	79.43	80.43	81.02	82.14	82.88	79.52
OTHER	46.88	54.36	61.47	64.33	68.43	68.12	68.48	77.44
FARM	65.24	63.48	60.55	52.85	47.37	57.20	58.28	58.25
COAL	33.80	35.18	44.17	48.23	52.99	51.28	52.90	53.65
CHEM	22.53	27.15	31.66	30.07	33.91	34.49	36.22	36.73

6-27-1990

* ESTIMATED

MISSISSIPPI RIVER - MINN. TO MOUTH, DOWNBOUND

(1982 - 1989 ; BY COMMODITY ,DOMESTIC ONLY)



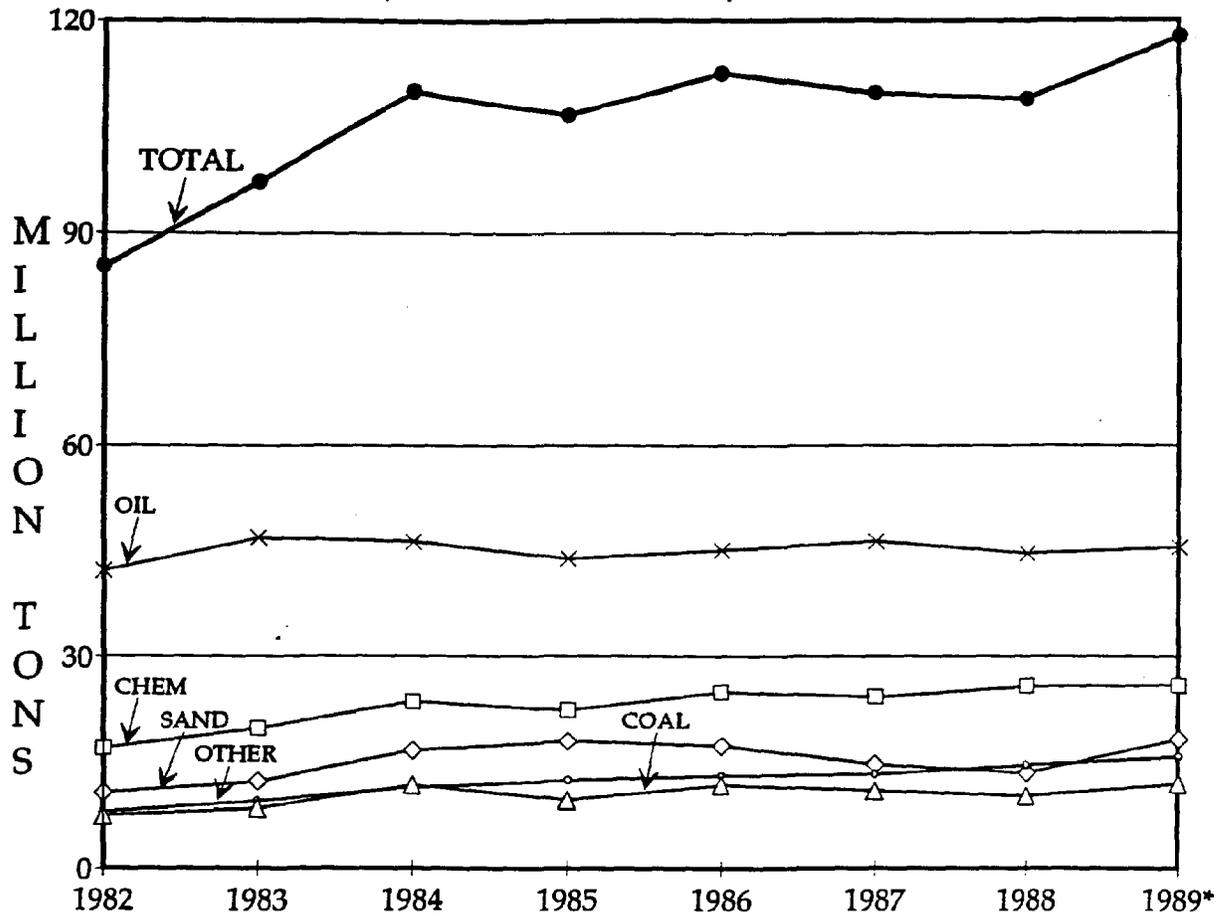
YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	164.93	167.11	167.35	169.30	171.27	183.43	189.84	187.92
FARM	64.63	62.60	59.55	51.68	46.12	56.37	57.02	56.79
COAL	26.33	26.69	32.39	38.53	41.19	40.28	42.65	41.66
OIL	39.51	36.99	33.11	36.51	35.93	35.75	38.25	33.99
SAND	8.75	11.80	13.71	15.91	16.22	18.56	16.70	23.24
OTHER	20.17	21.79	20.66	19.11	23.01	22.36	24.91	21.52
CHEM	5.54	7.24	7.93	7.56	8.80	10.11	10.31	10.72

6-27-1990

* ESTIMATED

MISSISSIPPI RIVER - MINN. TO MOUTH, UPBOUND

(1982 - 1989 ; BY COMMODITY ,DOMESTIC ONLY)

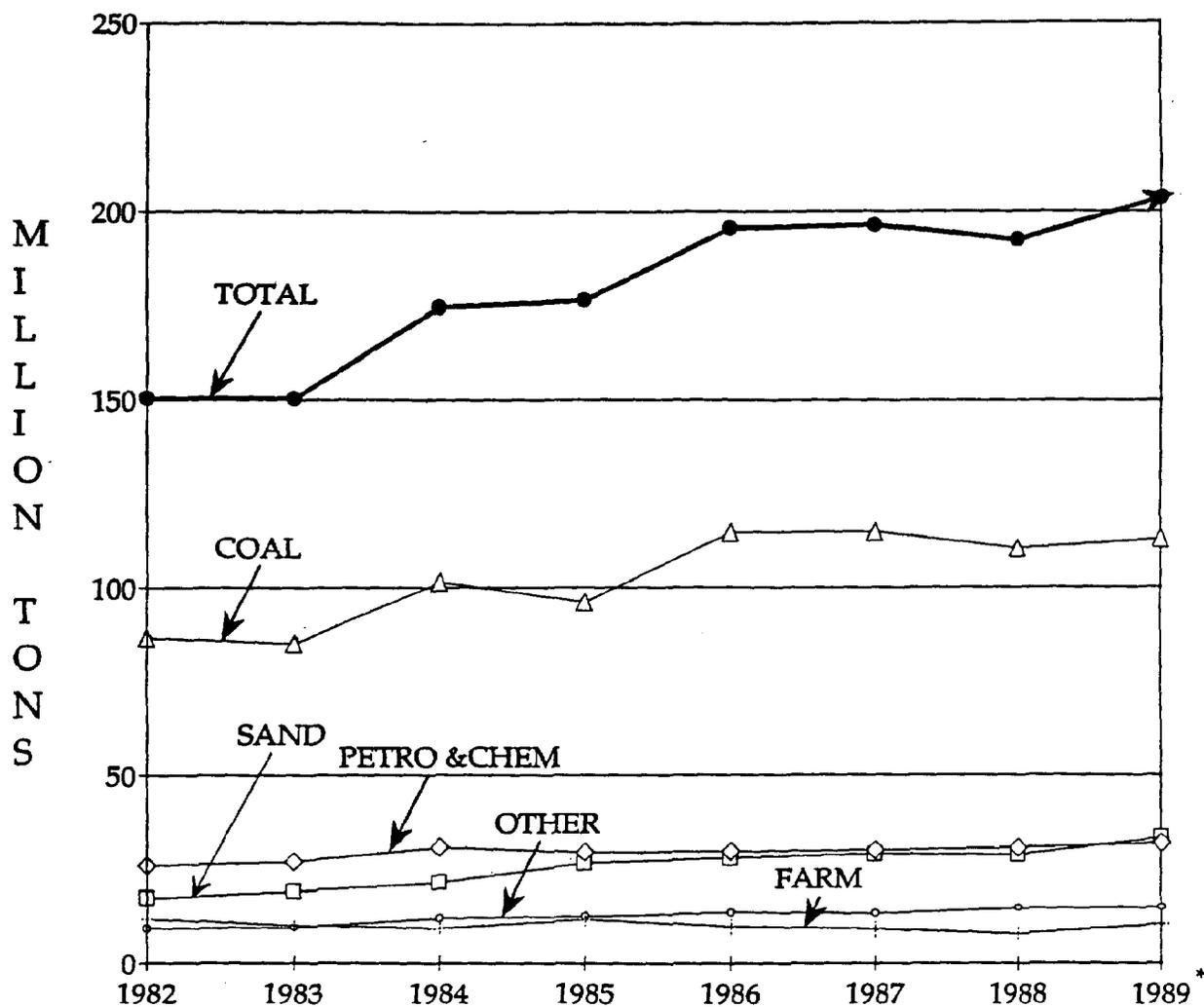


YEAR	1982	1983	1984	1985	1986	1987	1988	1989*
TOTAL	85.32	97.15	110.02	106.68	112.50	109.79	108.90	117.67
OIL	42.17	46.88	46.32	43.91	45.10	46.38	44.63	45.53
CHEM	16.99	19.91	23.73	22.51	25.11	24.38	25.90	26.01
SAND	10.73	12.30	16.70	18.03	17.34	14.70	13.47	18.31
OTHER	7.96	9.57	11.49	12.53	13.15	13.34	14.65	15.83
COAL	7.47	8.49	11.78	9.70	11.80	10.99	10.25	11.99

6-27-1990

* ESTIMATED

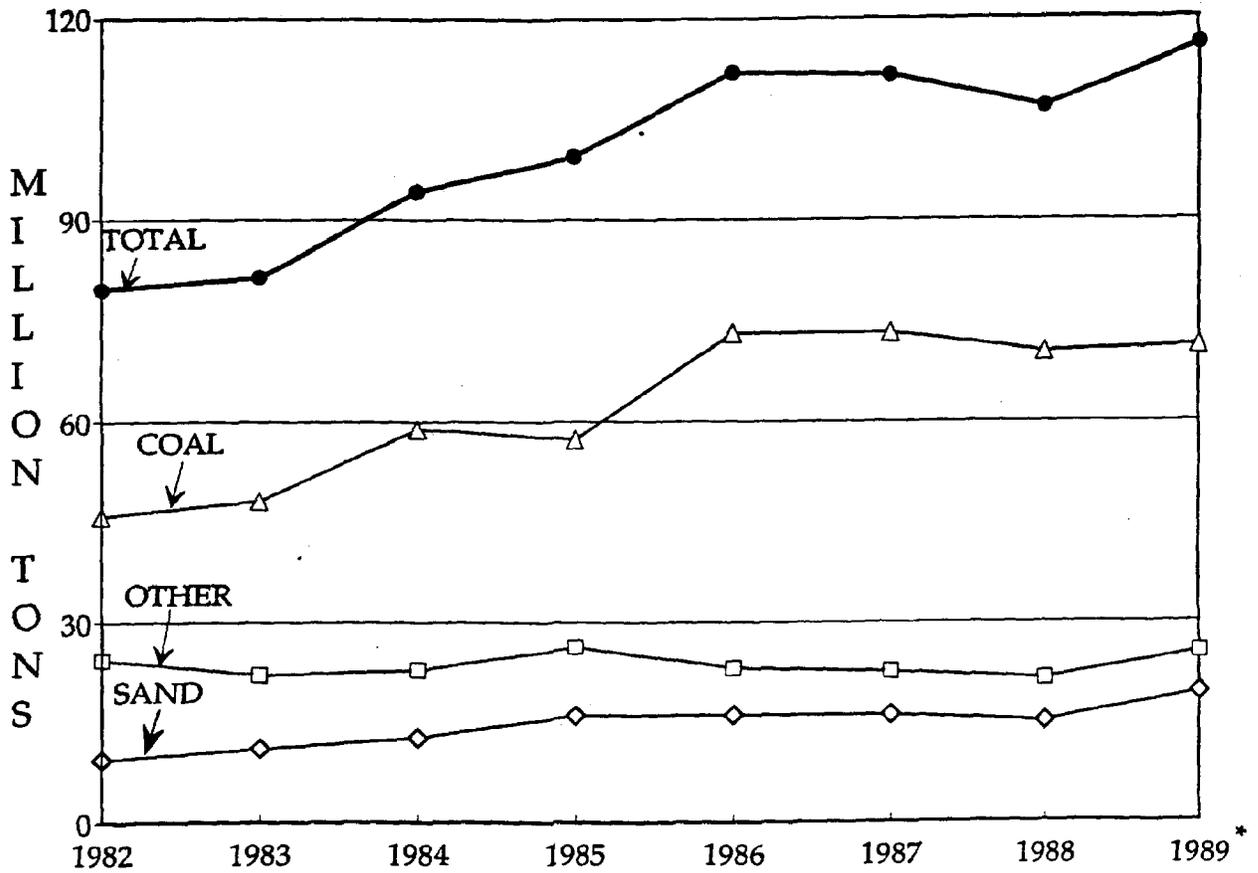
OHIO RIVER - TOTAL (1982 - 1989 ; BY COMMODITY)



YEAR	1982	1983	1984	1985	1986	1987	1988	1989*
TOTAL	150.63	150.38	174.91	176.8	195.71	196.37	192.59	203.63
COAL	86.52	84.98	101.43	96.18	114.81	115.03	110.57	113.13
SAND	17.22	19.14	21.48	26.70	27.91	29.02	28.85	33.33
PETRO & CHEM	25.96	27.01	30.79	29.65	29.72	29.96	30.72	31.99
OTHER	9.12	9.32	11.98	12.50	13.52	13.36	14.72	14.81
FARM	11.81	9.93	9.23	11.77	9.75	9.00	7.73	10.37

OHIO RIVER - DOWNBOUND

(1982 - 1989 ; BY COMMODITY)



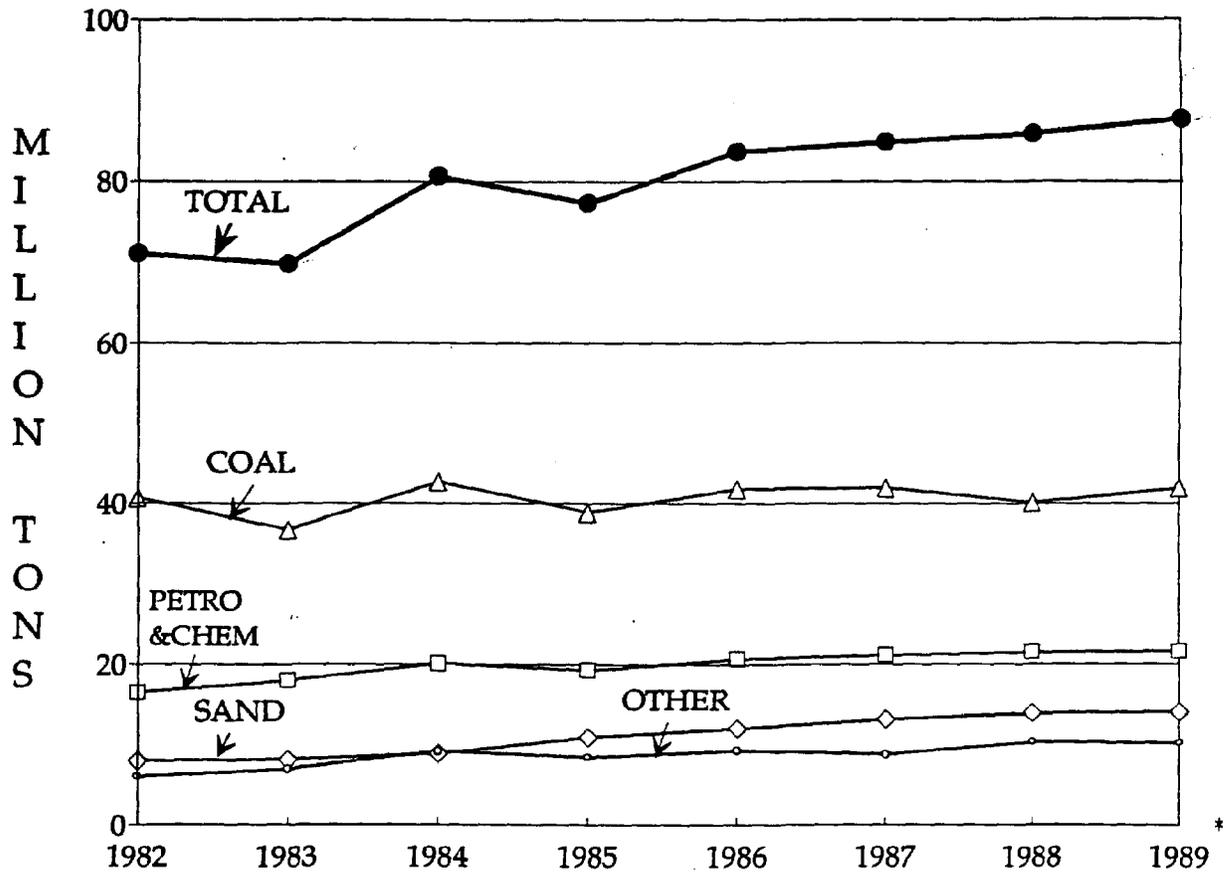
YEAR	1982	1983	1984	1985	1986	1987	1988	1989*
TOTAL	79.52	81.33	94.26	99.47	111.99	111.53	106.78	115.98
COAL	45.81	48.17	58.75	57.25	72.99	73.12	70.36	71.20
OTHER	24.37	22.06	22.84	26.30	23.05	22.47	21.43	25.44
SAND	9.34	11.10	12.67	15.92	15.95	15.94	14.99	19.34

6-27-1990

* ESTIMATED

OHIO RIVER - UPBOUND

(1982 - 1989 ; BY COMMODITY)



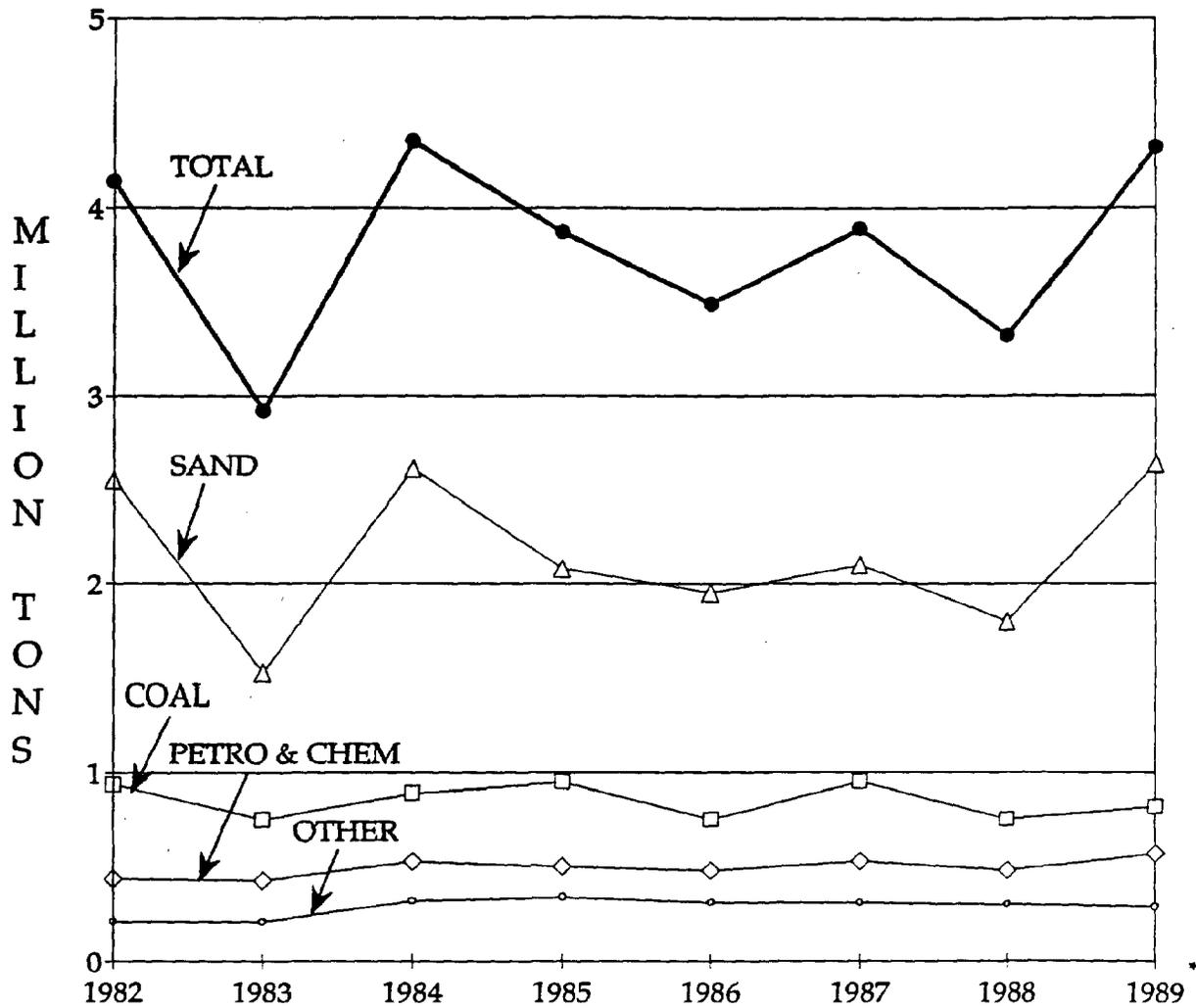
YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	71.03	69.77	80.63	77.33	83.66	84.83	85.82	87.65
COAL	40.71	36.80	42.68	38.93	41.82	41.91	40.21	41.93
PETRO & CHEM	16.43	17.99	20.08	19.25	20.68	21.15	21.52	21.60
SAND	7.88	8.05	8.81	10.78	11.96	13.09	13.86	13.98
OTHER	6.01	6.94	9.06	8.38	9.21	8.69	10.23	10.14

6-27-1990

* ESTIMATED

ALLEGHENY RIVER - TOTAL

(1982 - 1989 ; BY COMMODITY)



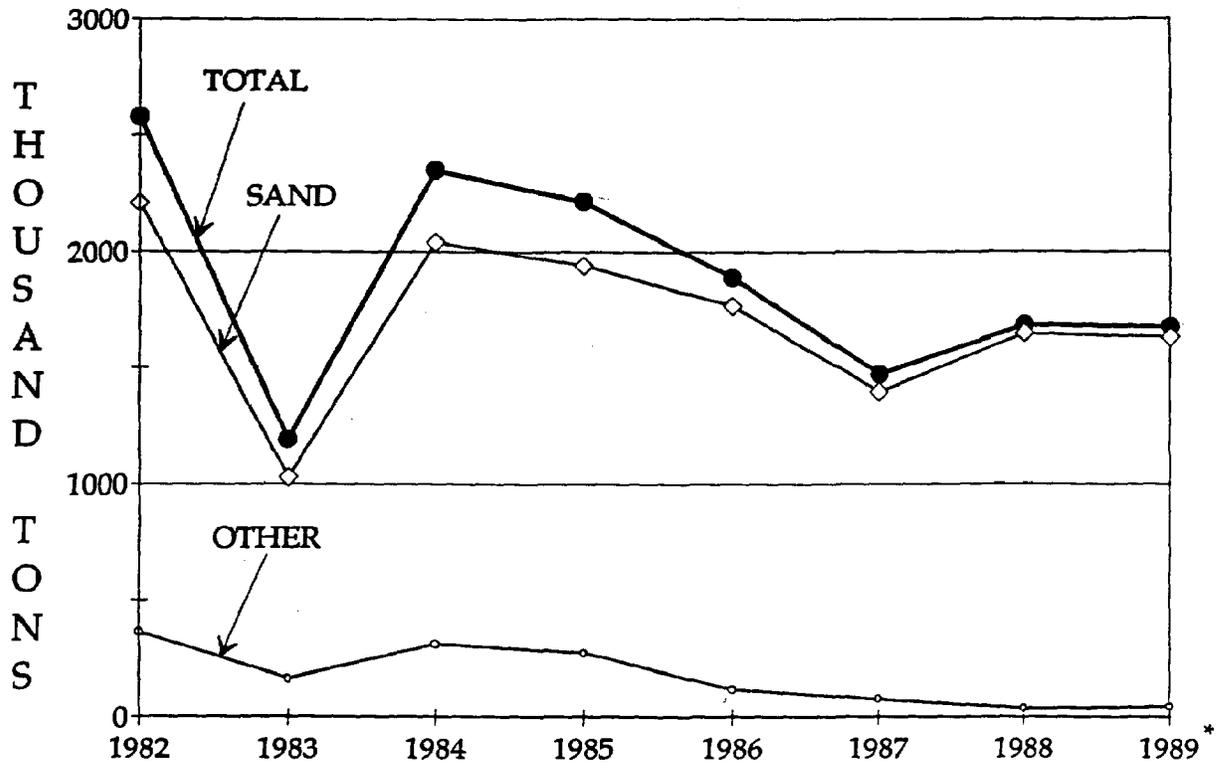
YEAR	1982	1983	1984	1985	1986	1987	1988	1989*
TOTAL	4.14	2.92	4.35	3.87	3.49	3.89	3.32	4.32
SAND	2.55	1.53	2.61	2.08	1.95	2.10	1.80	2.64
COAL	0.94	0.75	0.89	0.95	0.75	0.95	0.75	0.82
PETRO & CHEM	0.44	0.43	0.53	0.50	0.48	0.53	0.48	0.57
OTHER	0.21	0.21	0.32	0.34	0.31	0.31	0.30	0.29

5-29-1990

* ESTIMATED

ALLEGHENY RIVER - DOWNBOUND

(1982 - 1989 ; BY COMMODITY)



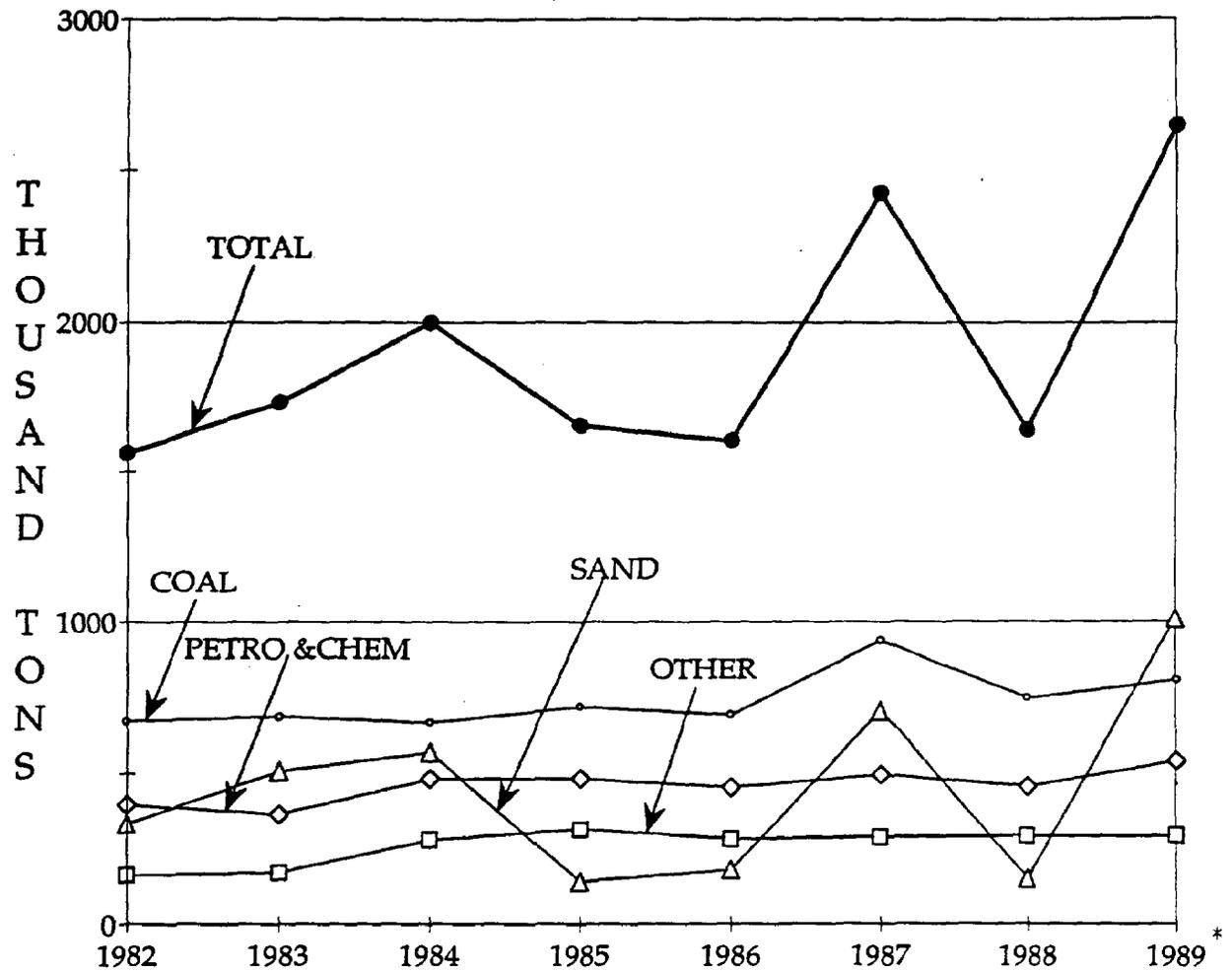
YEAR	1982	1983	1984	1985	1986	1987	1988	1989*
TOTAL	2577	1192	2354	2215	1888	1471	1684	1675
SAND	2211	1027	2041	1941	1769	1395	1646	1631
OTHER	366	165	313	274	119	76	38	44

6-27-1990

* ESTIMATED

ALLEGHENY RIVER - UPBOUND

(1982 - 1989 ; BY COMMODITY)

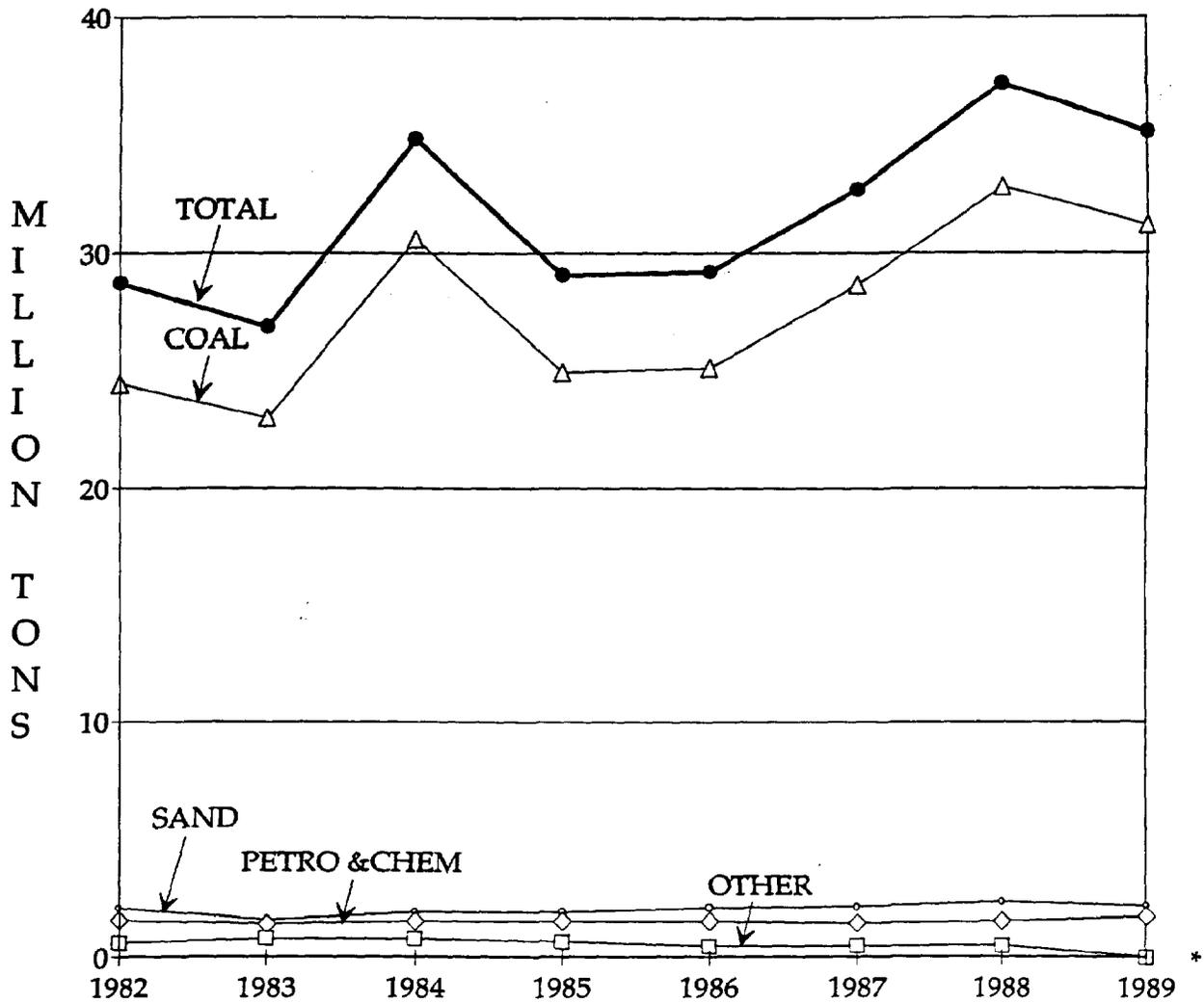


YEAR	1982	1983	1984	1985	1986	1987	1988	1989*
TOTAL	1563	1731	1996	1652	1603	2423	1640	2647
SAND	334	507	568	140	179	704	150	1011
COAL	670	687	666	718	691	937	745	805
PETRO & CHEM	396	366	482	481	452	494	454	538
OTHER	163	171	280	313	281	288	291	293

6-27-1990

*ESTIMATED

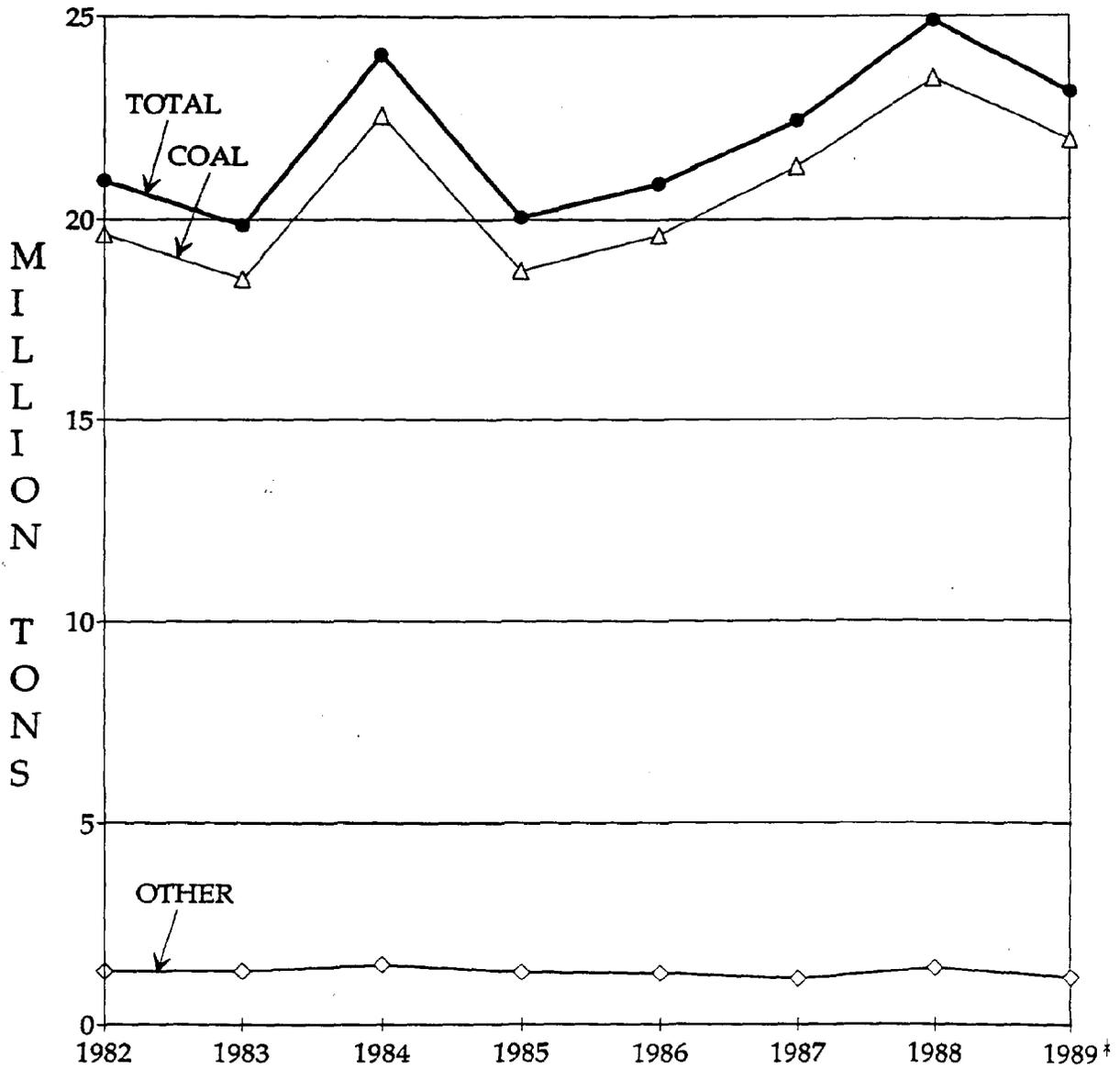
MONONGAHELA RIVER - TOTAL (1982 - 1989 ; BY COMMODITY)



YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	28.68	26.82	34.82	29.03	29.19	32.71	37.20	35.10
COAL	24.43	23.00	30.58	24.90	25.10	28.62	32.81	31.21
SAND	2.06	1.59	1.91	1.93	2.09	2.13	2.34	2.15
PETRO & CHEM	1.57	1.43	1.54	1.53	1.53	1.48	1.55	1.74
OTHER	0.62	0.80	0.79	0.67	0.47	0.48	0.50	0

MONONGAHELA RIVER -DOWNBOUND

(1982 - 1989 ; BY COMMODITY)



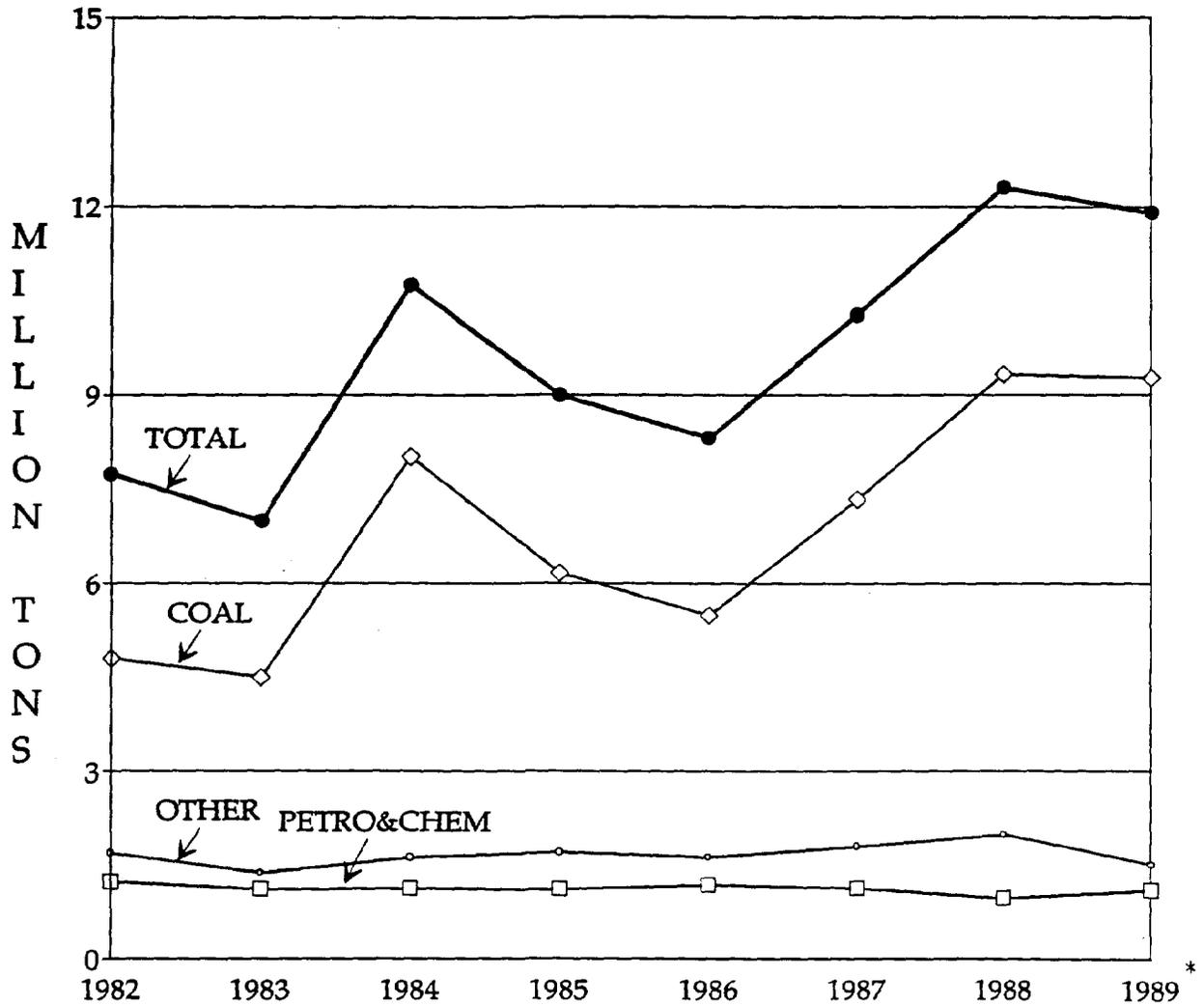
YEAR	1982	1983	1984	1985	1986	1987	1988	1989*
TOTAL	20.94	19.84	24.06	20.04	20.88	22.42	24.89	23.12
COAL	19.63	18.51	22.57	18.74	19.61	21.29	23.48	21.94
OTHER	1.31	1.33	1.49	1.30	1.27	1.13	1.41	1.18

6-27-1990

* ESTIMATED

MONONGAHELA RIVER - UPBOUND

(1982 -1989 ; BY COMMODITY)



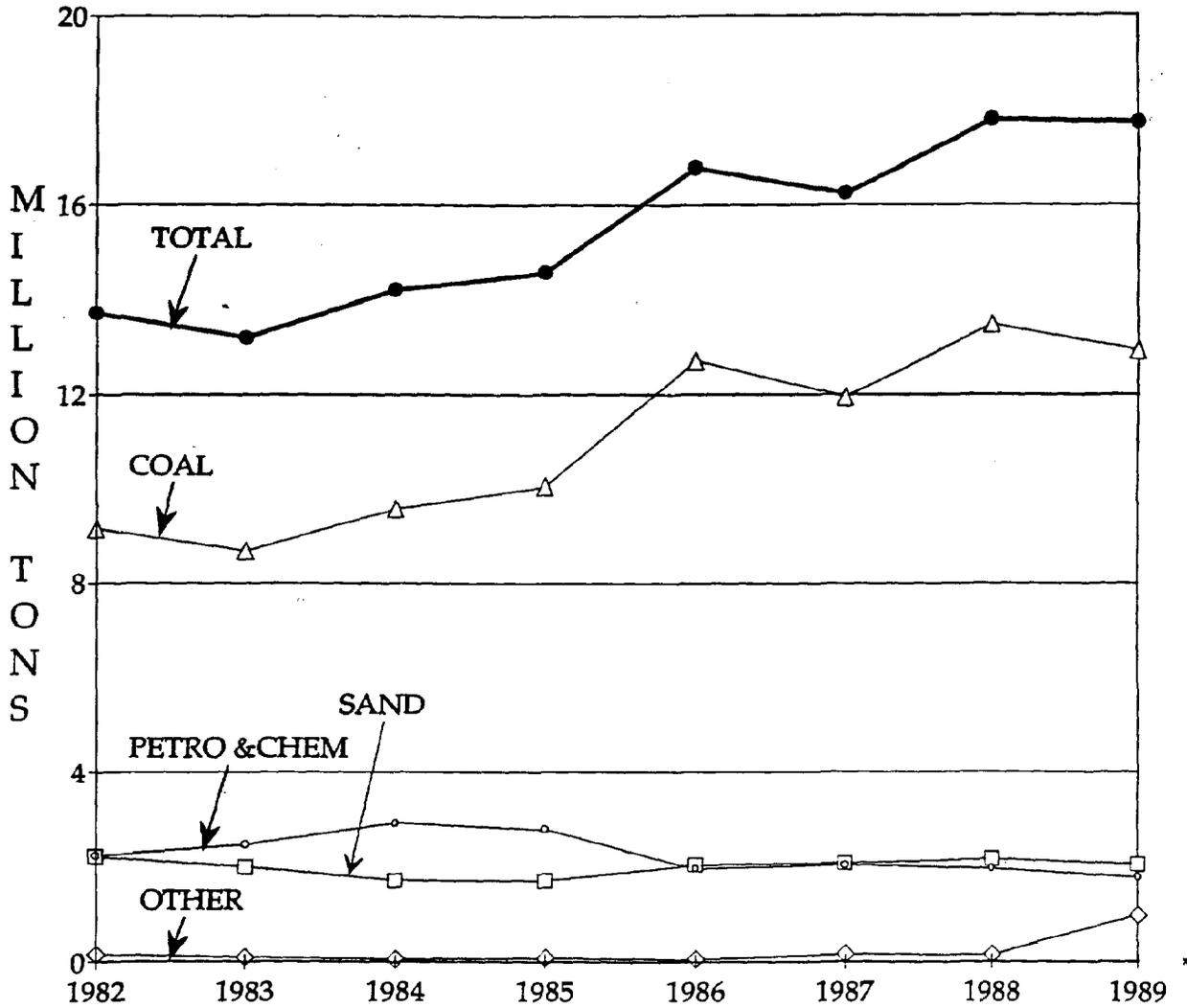
YEAR	1982	1983	1984	1985	1986	1987	1988	1989*
TOTAL	7.73	6.98	10.76	8.99	8.31	10.28	12.31	11.9
COAL	4.79	4.48	8.01	6.16	5.49	7.33	9.33	9.27
OTHER	1.70	1.38	1.62	1.71	1.63	1.81	2.00	1.52
PETRO & CHEM	1.24	1.12	1.13	1.12	1.19	1.14	0.98	1.11

6-26-1990

* ESTIMATED

KANAWHA RIVER - TOTAL

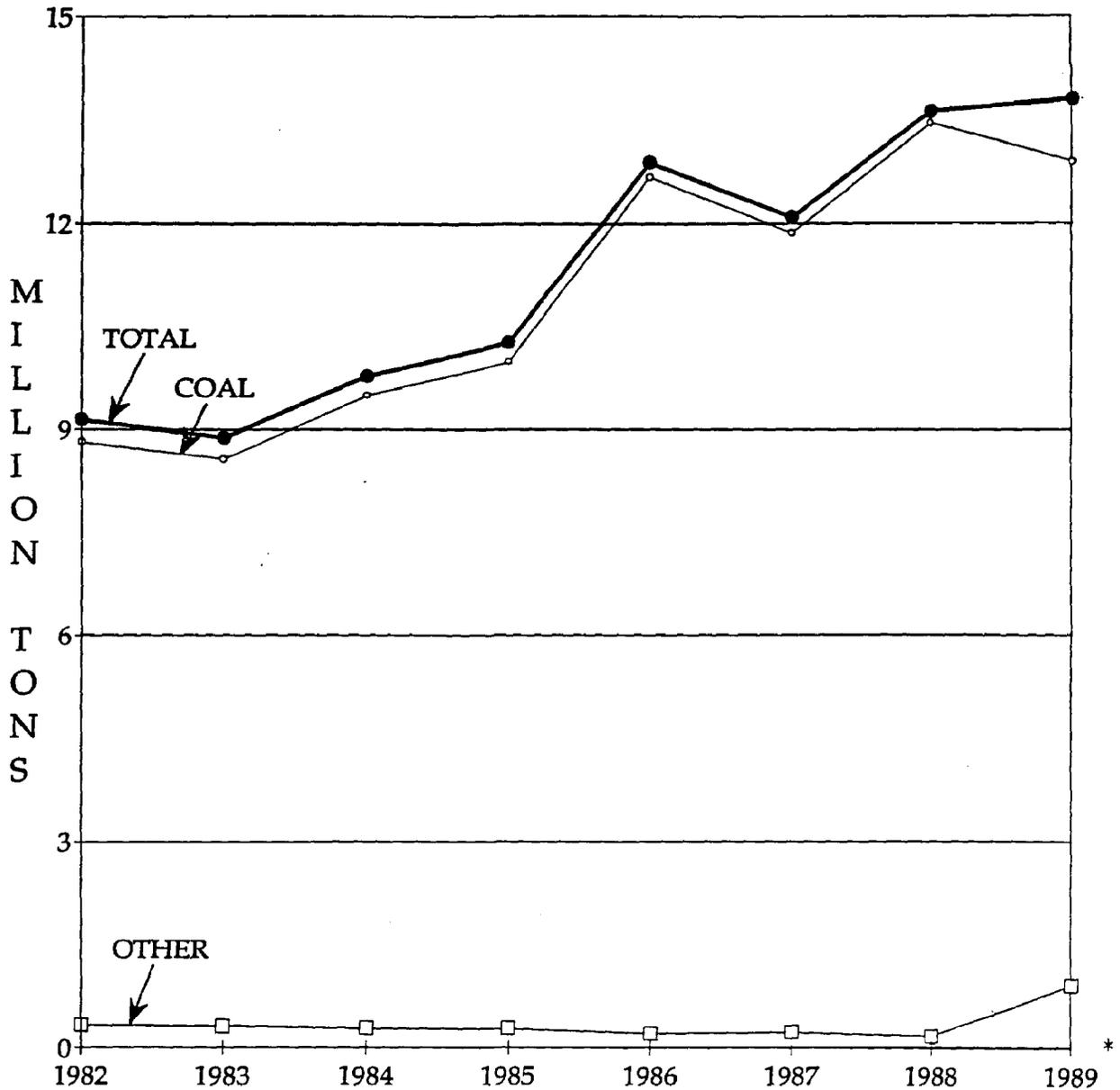
(1982 - 1989 ; BY COMMODITY)



YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	13.73	13.21	14.23	14.6	16.79	16.24	17.79	17.74
COAL	9.14	8.68	9.57	10.05	12.73	11.95	13.51	12.94
SAND	2.21	1.99	1.69	1.69	2.04	2.08	2.16	2.05
PETRO & CHEM	2.23	2.45	2.92	2.78	1.96	2.04	1.96	1.78
OTHER	0.15	0.09	0.05	0.08	0.06	0.17	0.16	0.97

KANAWHA RIVER - DOWNBOUND

(1982 -1989 ; BY COMMODITY)

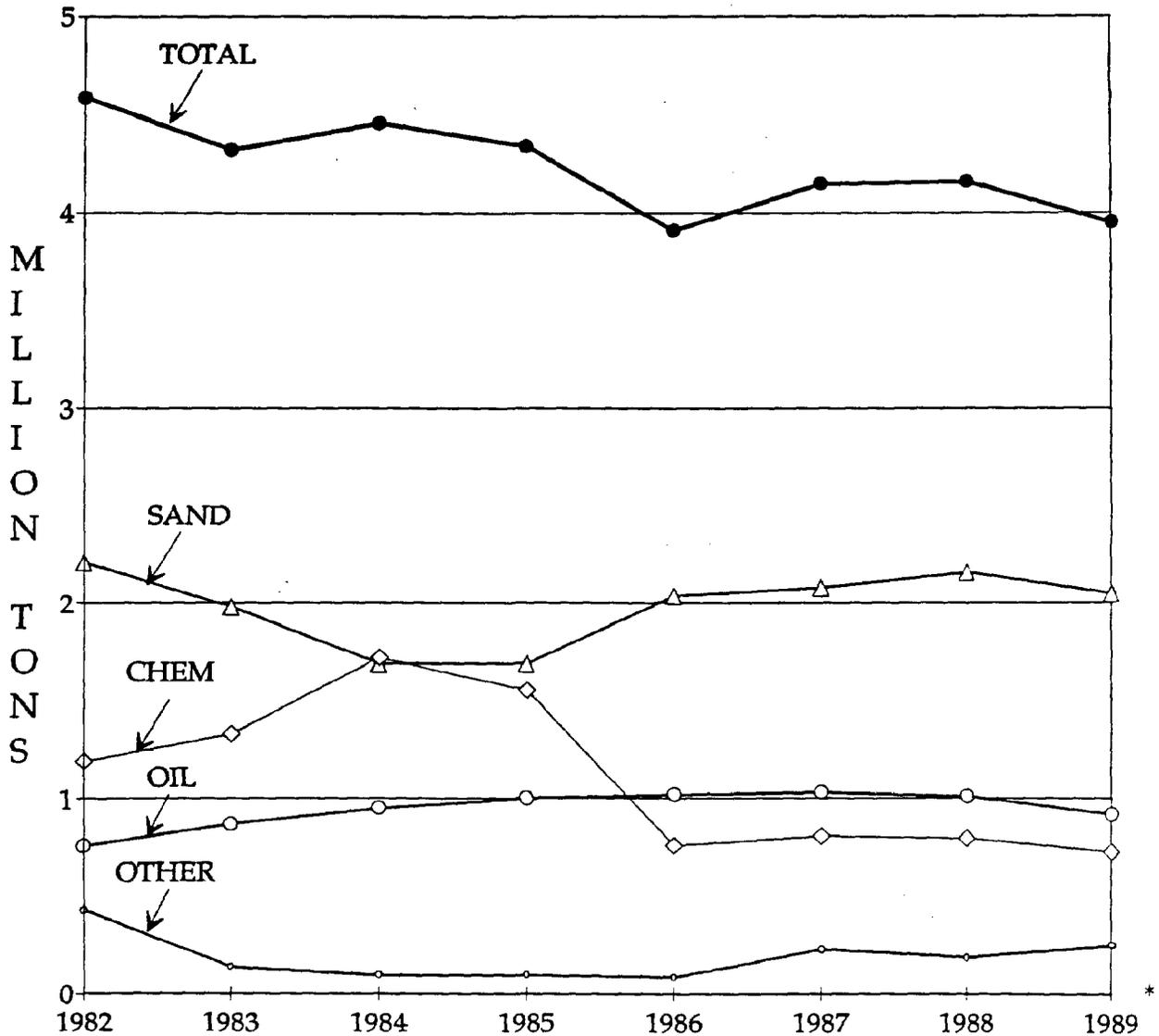


YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	9.14	8.88	9.77	10.26	12.88	12.09	13.62	13.79
COAL	8.82	8.57	9.49	9.98	12.67	11.86	13.45	12.89
OTHER	0.32	0.31	0.28	0.28	0.21	0.23	0.17	0.90

6-27-1990

* ESTIMATED

KANAWHA RIVER - UPBOUND (1982 - 1989 ; BY COMMODITY)

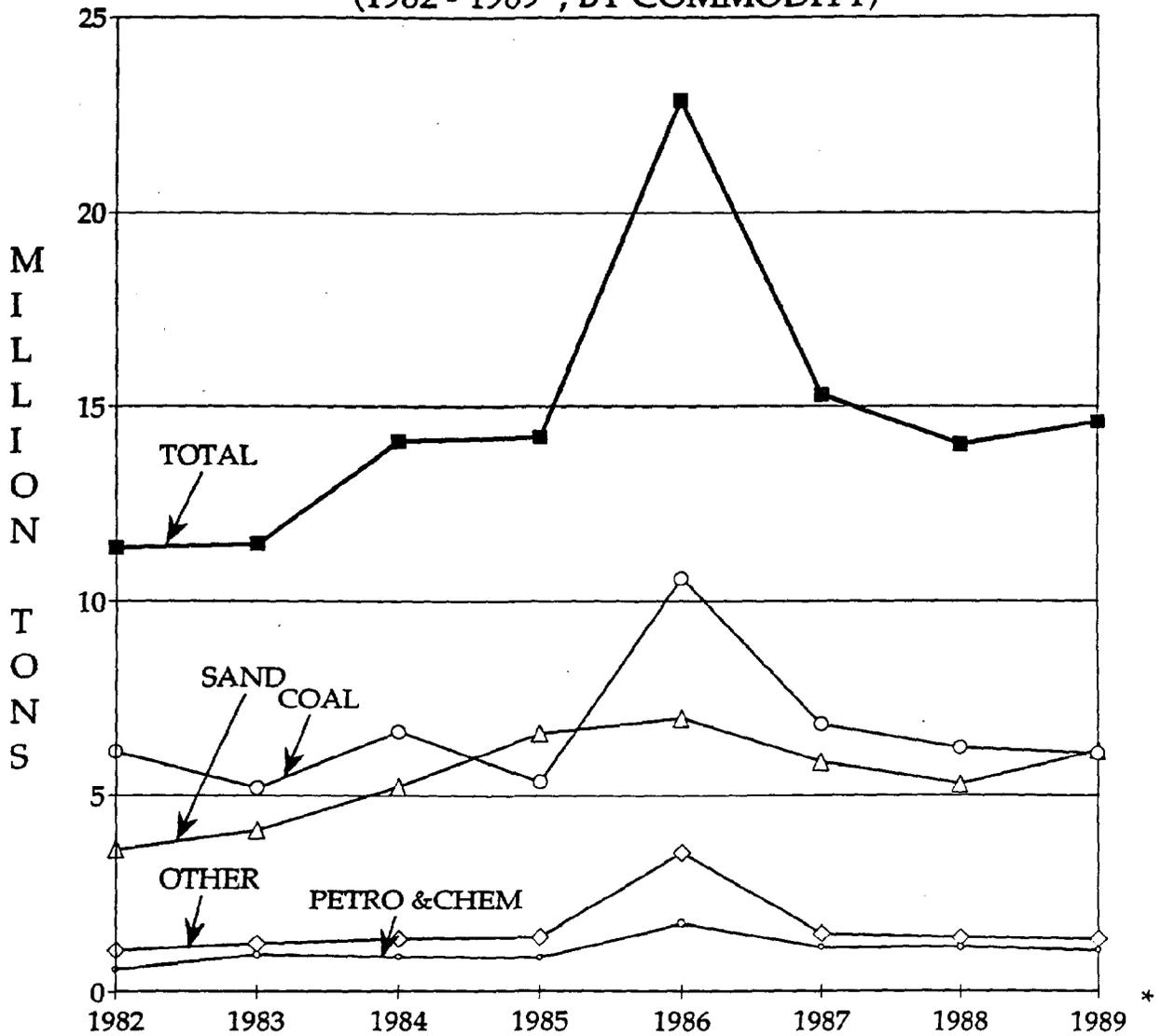


YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	4.59	4.32	4.46	4.34	3.91	4.15	4.16	3.95
SAND	2.21	1.98	1.69	1.69	2.04	2.08	2.16	2.05
OIL	0.76	0.87	0.95	1.00	1.02	1.03	1.01	0.92
CHEM	1.19	1.33	1.72	1.55	0.76	0.81	0.80	0.73
OTHER	0.43	0.14	0.10	0.10	0.09	0.23	0.19	0.25

6-27-1990

* ESTIMATED

CUMBERLAND RIVER - TOTAL (1982 - 1989 ; BY COMMODITY)



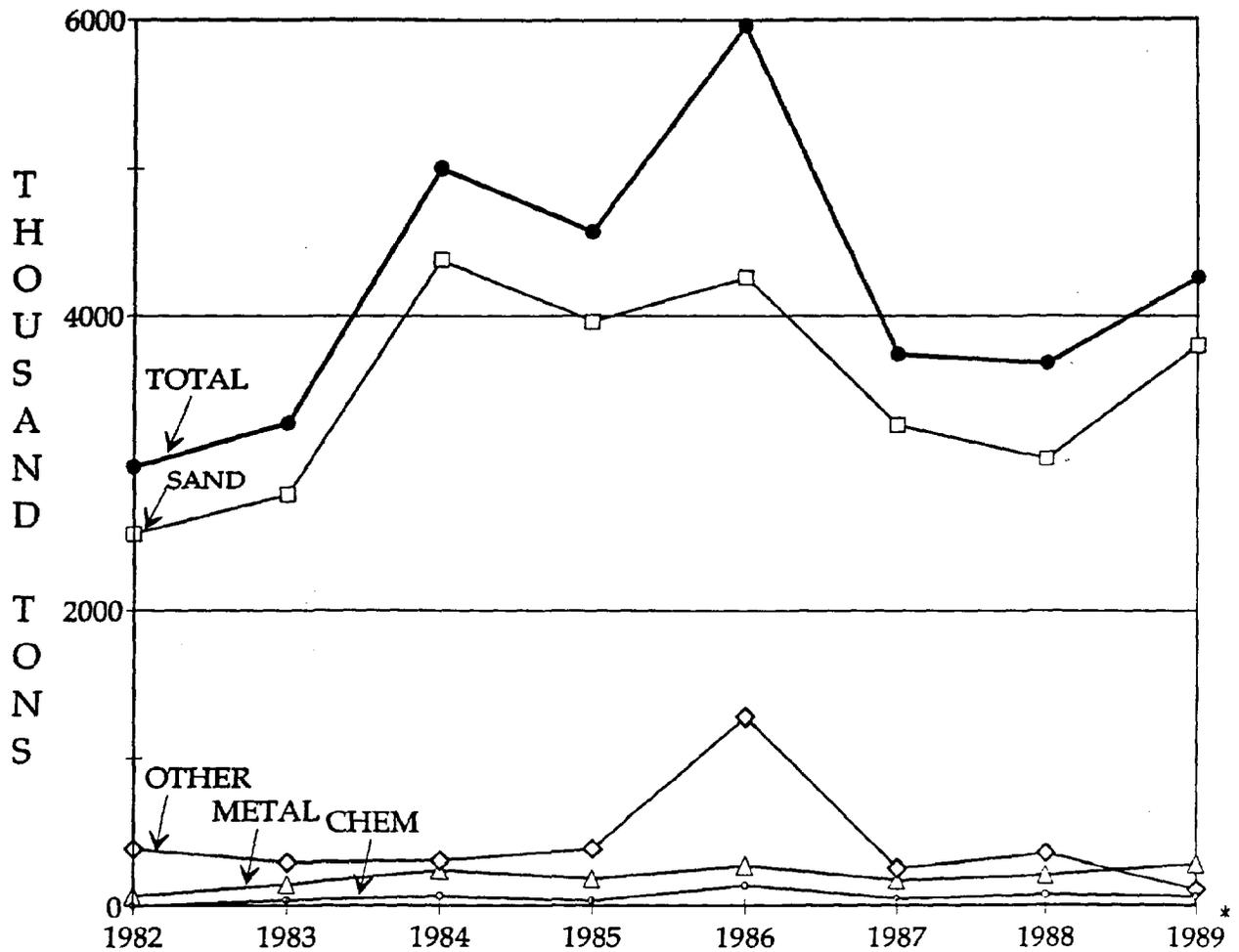
YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	11.39	11.48	14.12	14.21	22.88	15.29	14.03	14.61
SAND	3.64	4.11	5.23	6.60	6.99	5.85	5.30	6.14
COAL	6.12	5.19	6.65	5.35	10.59	6.83	6.22	6.07
OTHER	1.06	1.24	1.36	1.40	3.55	1.49	1.38	1.35
PETRO & CHEM	0.57	0.94	0.88	0.86	1.75	1.12	1.13	1.05

5-21-1990

* ESTIMATED

CUMBERLAND RIVER - DOWNBOUND

(1982 -1989 ; BY COMMODITY)



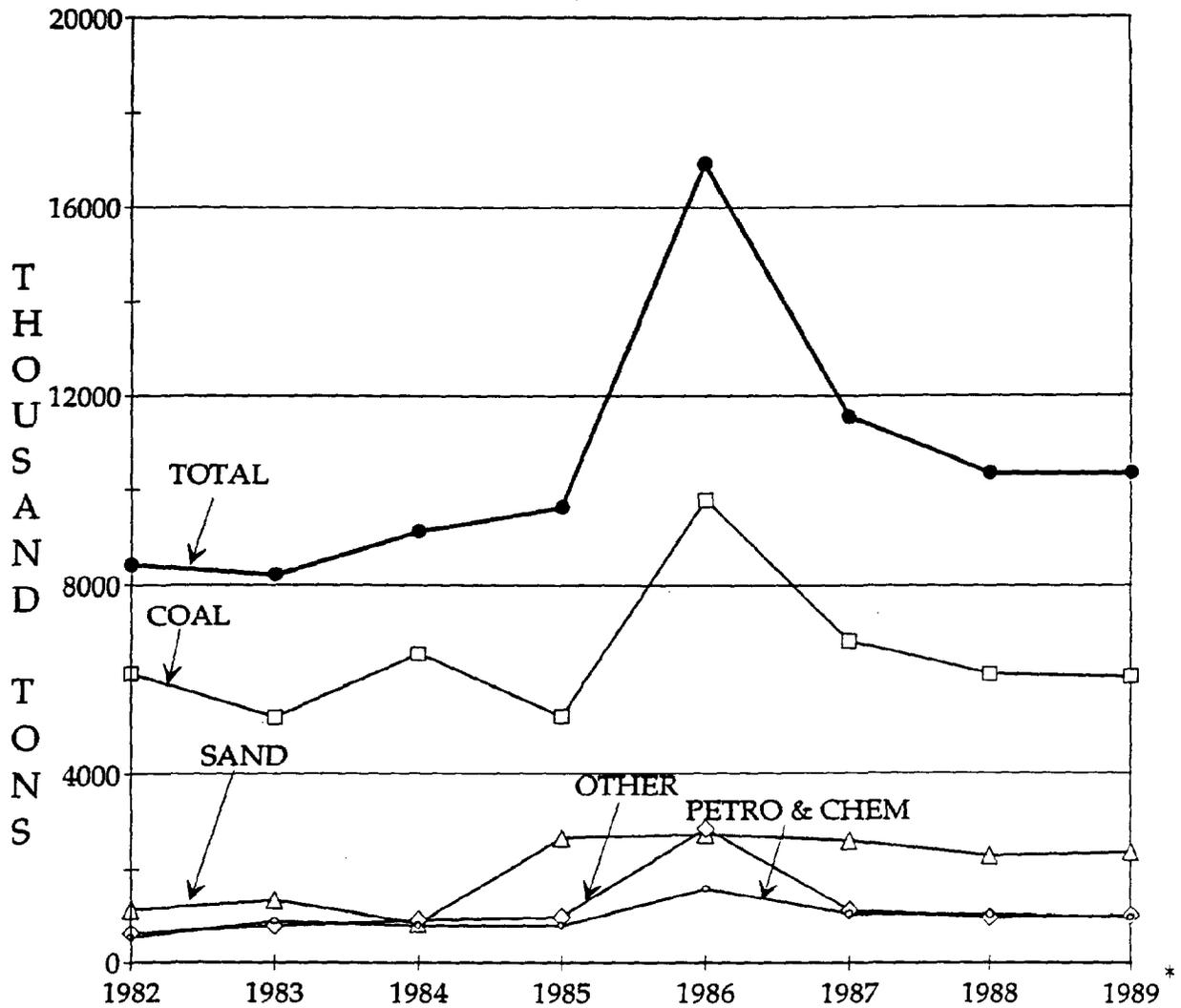
YEAR	1982	1983	1984	1985	1986	1987	1988	1989*
TOTAL	2976	3273	5002	4575	5961	3736	3677	4260
SAND	2517	2784	4380	3959	4263	3256	3033	3796
METAL	71	151	243	189	278	178	213	289
OTHER	387	298	310	389	1277	255	355	113
CHEM	1	40	69	38	143	47	76	62

6-27-1990

* ESTIMATED

CUMBERLAND RIVER - UPBOUND

(1982 - 1989 ; BY COMMODITY)



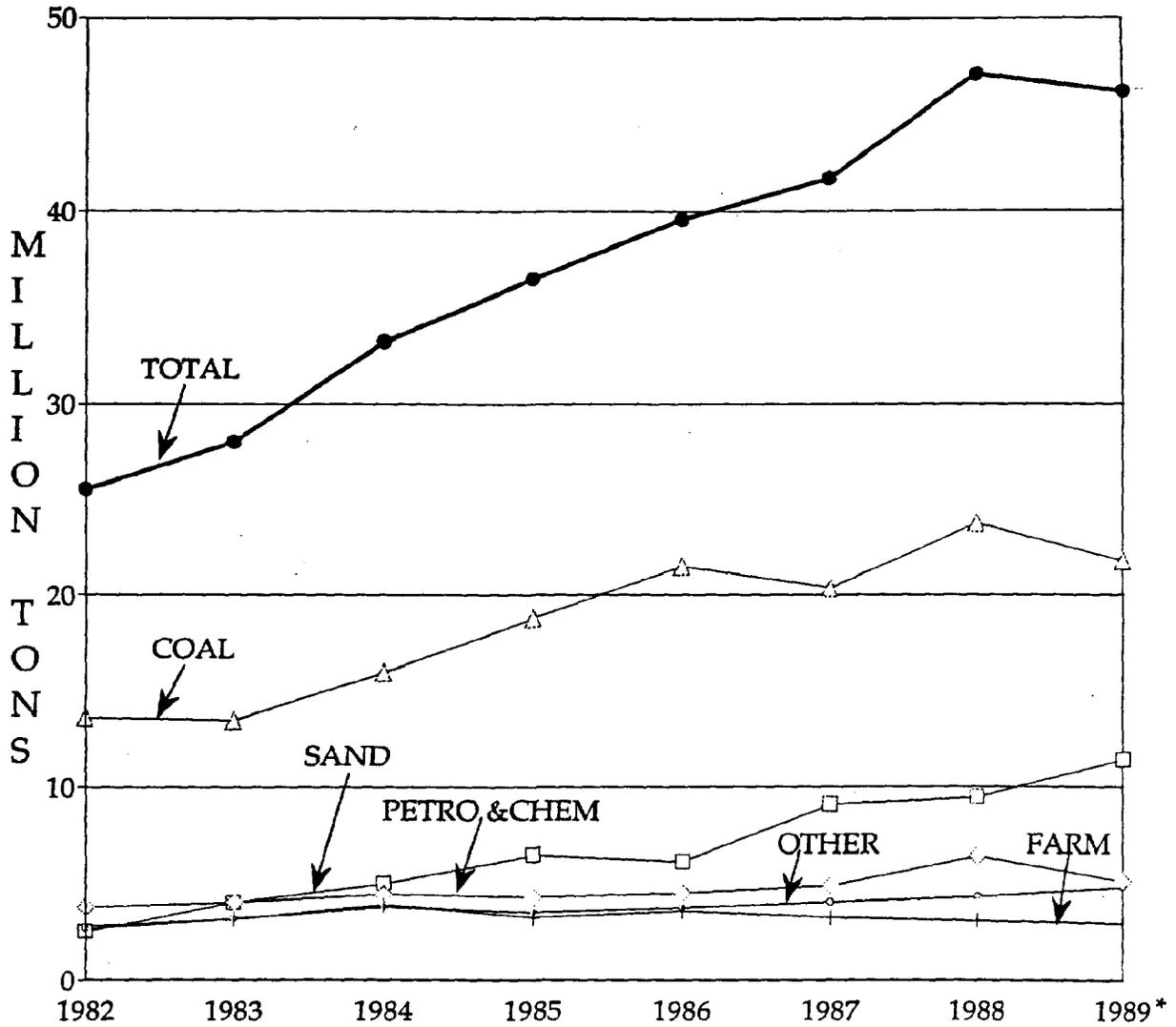
YEAR	1982	1983	1984	1985	1986	1987	1988	1989*
TOTAL	8417	8202	9116	9631	16922	11554	10349	10353
COAL	6110	5185	6538	5207	9785	6808	6096	6042
SAND	1126	1324	846	2646	2726	2598	2269	2346
OTHER	634	797	927	977	2847	1111	964	996
PETRO & CHEM	547	896	805	801	1564	1037	1020	969

6-27-1990

* ESTIMATED

TENNESSEE RIVER - TOTAL

(1982 - 1989 ; BY COMMODITY)

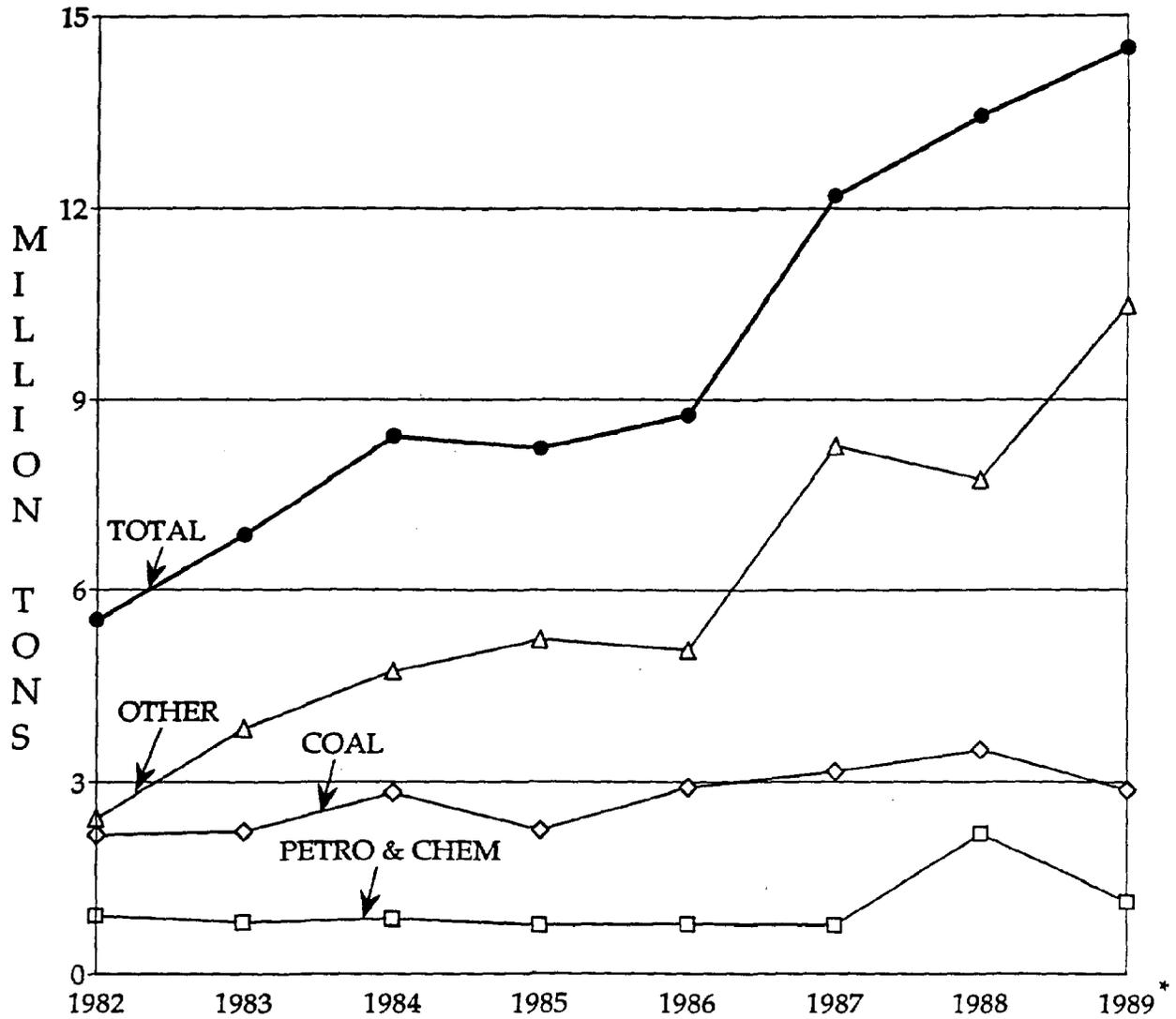


YEAR	1982	1983	1984	1985	1986	1987	1988	1989*
TOTAL	25.51	27.99	33.20	36.48	39.59	41.71	47.10	46.12
COAL	13.60	13.45	15.93	18.81	21.46	20.34	23.70	21.72
SAND	2.54	4.07	5.04	6.49	6.17	9.10	9.46	11.42
PETRO & CHEM	3.83	4.07	4.47	4.35	4.53	4.92	6.47	5.13
OTHER	2.70	3.22	3.82	3.55	3.81	4.08	4.36	4.85
FARM	2.84	3.18	3.94	3.28	3.62	3.27	3.11	3.00

5 - 22 - 1990

* ESTIMATED

TENNESSEE RIVER - DOWNBOUND (1982 - 1989 ; BY COMMODITY)



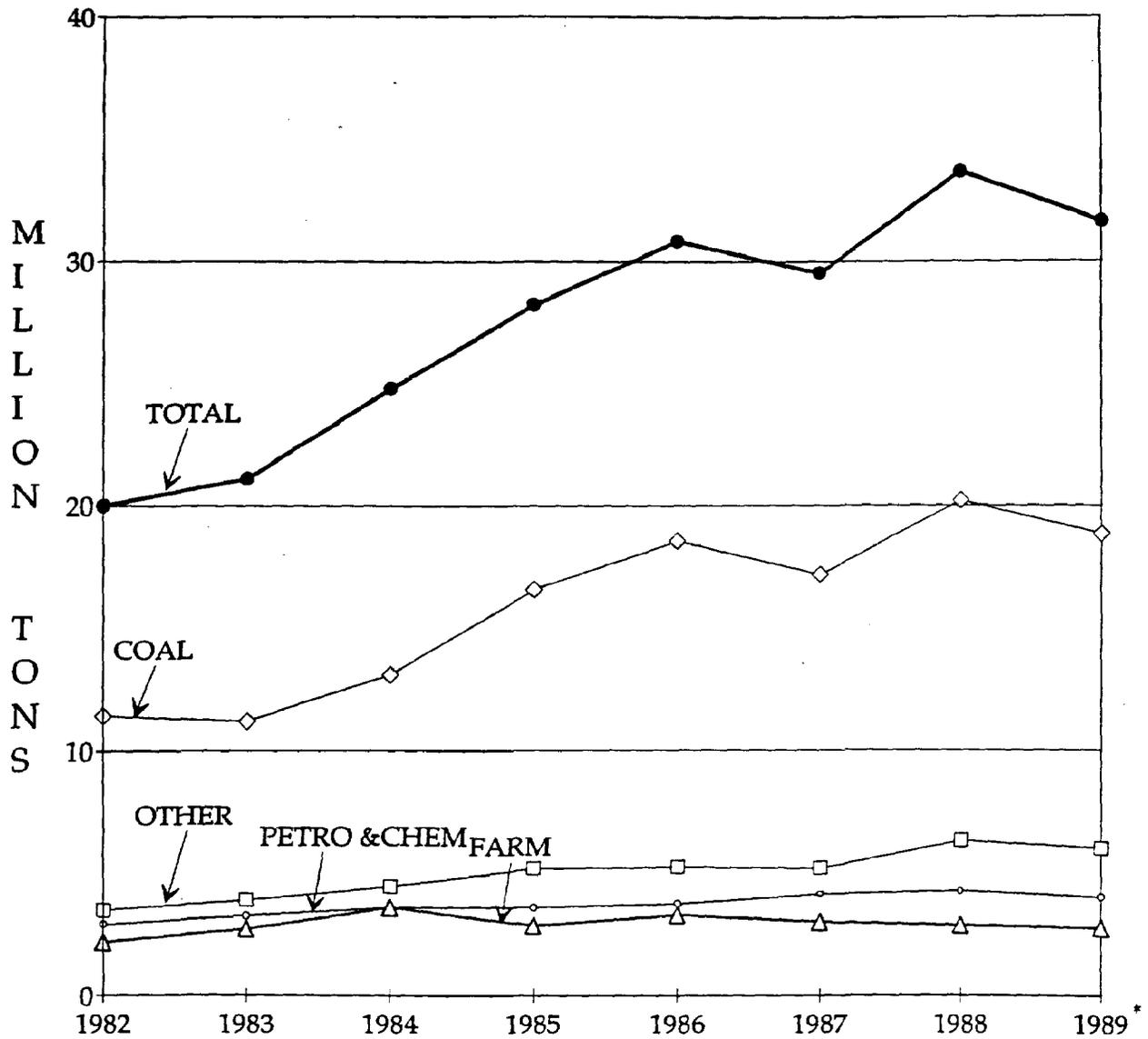
YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	5.53	6.88	8.43	8.24	8.76	12.19	13.44	14.50
OTHER	2.44	3.84	4.73	5.23	5.06	8.27	7.75	10.49
COAL	2.18	2.23	2.84	2.25	2.92	3.16	3.50	2.88
PETRO & CHEM	0.91	0.81	0.86	0.76	0.78	0.76	2.19	1.13

6-27-1990

* ESTIMATED

TENNESSEE RIVER - UPBOUND

(1982 - 1989 ; BY COMMODITY)

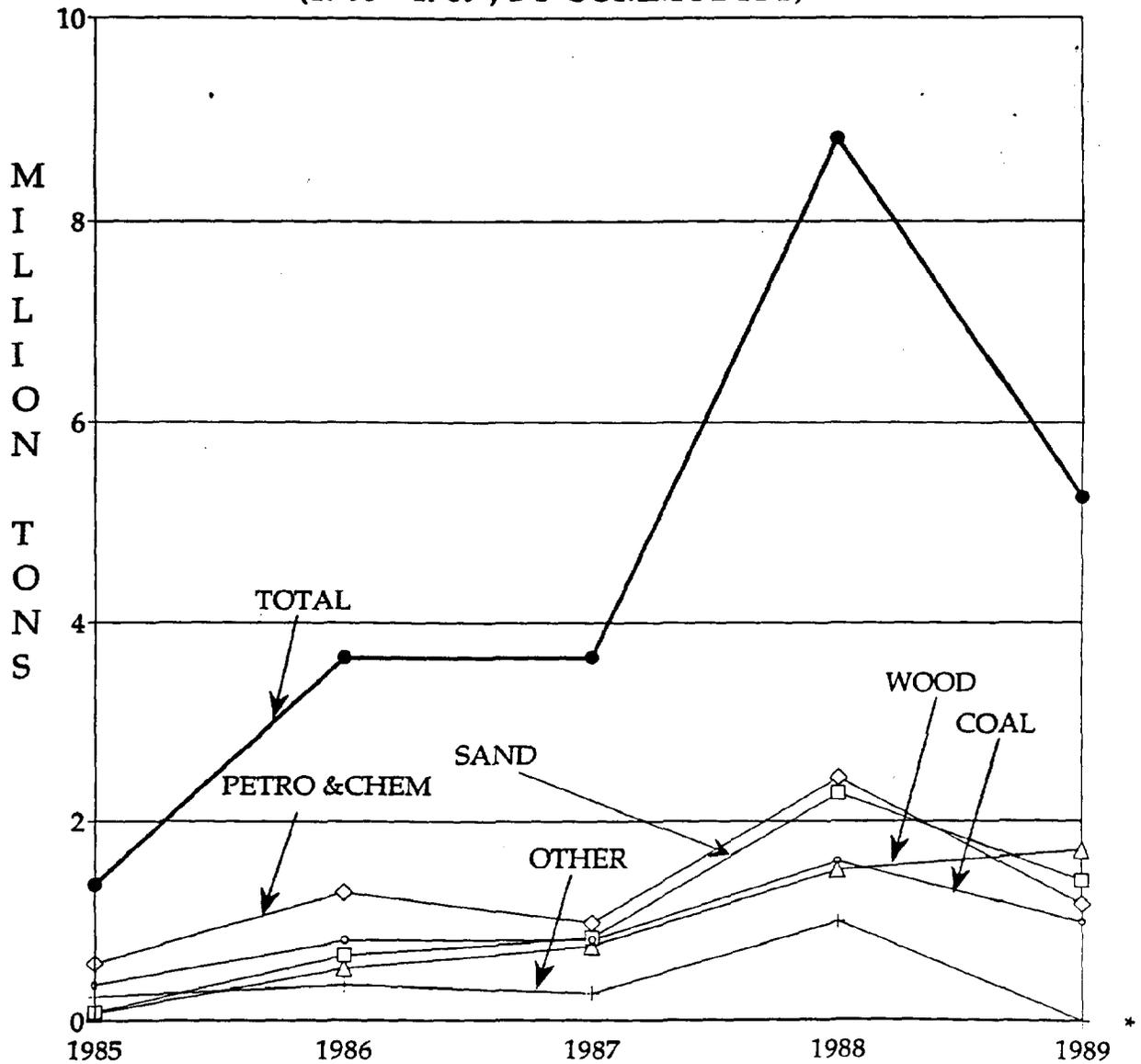


YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	19.98	21.10	24.78	28.24	30.83	29.52	33.66	31.62
COAL	11.42	11.22	13.09	16.57	18.54	17.17	20.20	18.84
OTHER	3.48	3.90	4.48	5.21	5.25	5.20	6.33	6.02
PETRO & CHEM	2.92	3.25	3.60	3.59	3.75	4.14	4.27	4.01
FARM	2.16	2.73	3.61	2.87	3.29	3.01	2.86	2.75

6-27-1990

* ESTIMATED

TENNESSEE-TOMBIGBEE WATERWAY - TOTAL (1985 - 1989 ; BY COMMODITY)



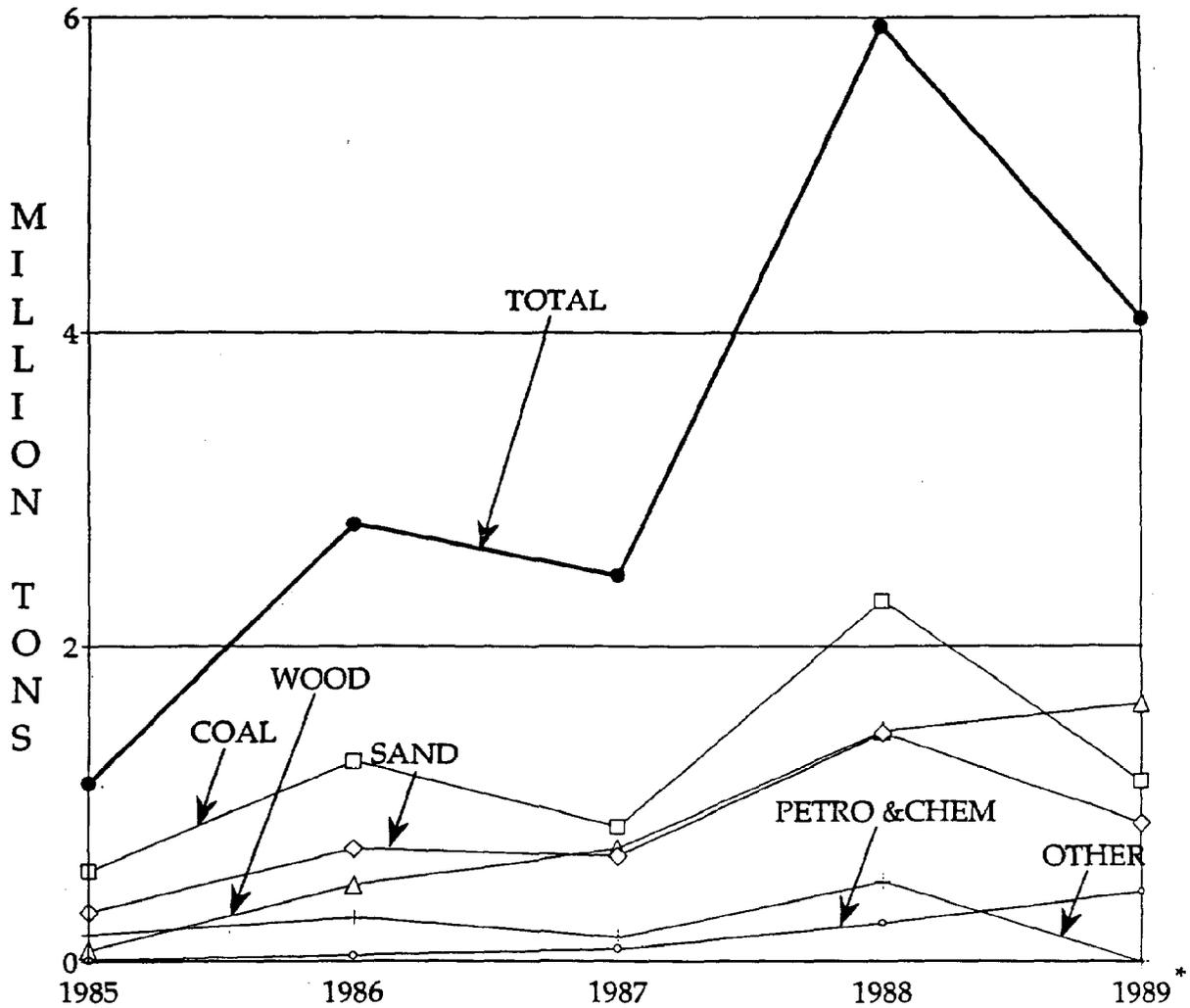
YEAR	1985	1986	1987	1988	1989 *
TOTAL	1.36	3.65	3.65	8.82	5.25
WOOD	0.08	0.53	0.75	1.51	1.71
SAND	0.09	0.66	0.83	2.28	1.40
PETRO & CHEM	0.58	1.29	0.98	2.44	1.16
COAL	0.36	0.81	0.81	1.60	0.98
OTHER	0.25	0.36	0.28	0.99	0.00

6-28-1990

* ESTIMATED

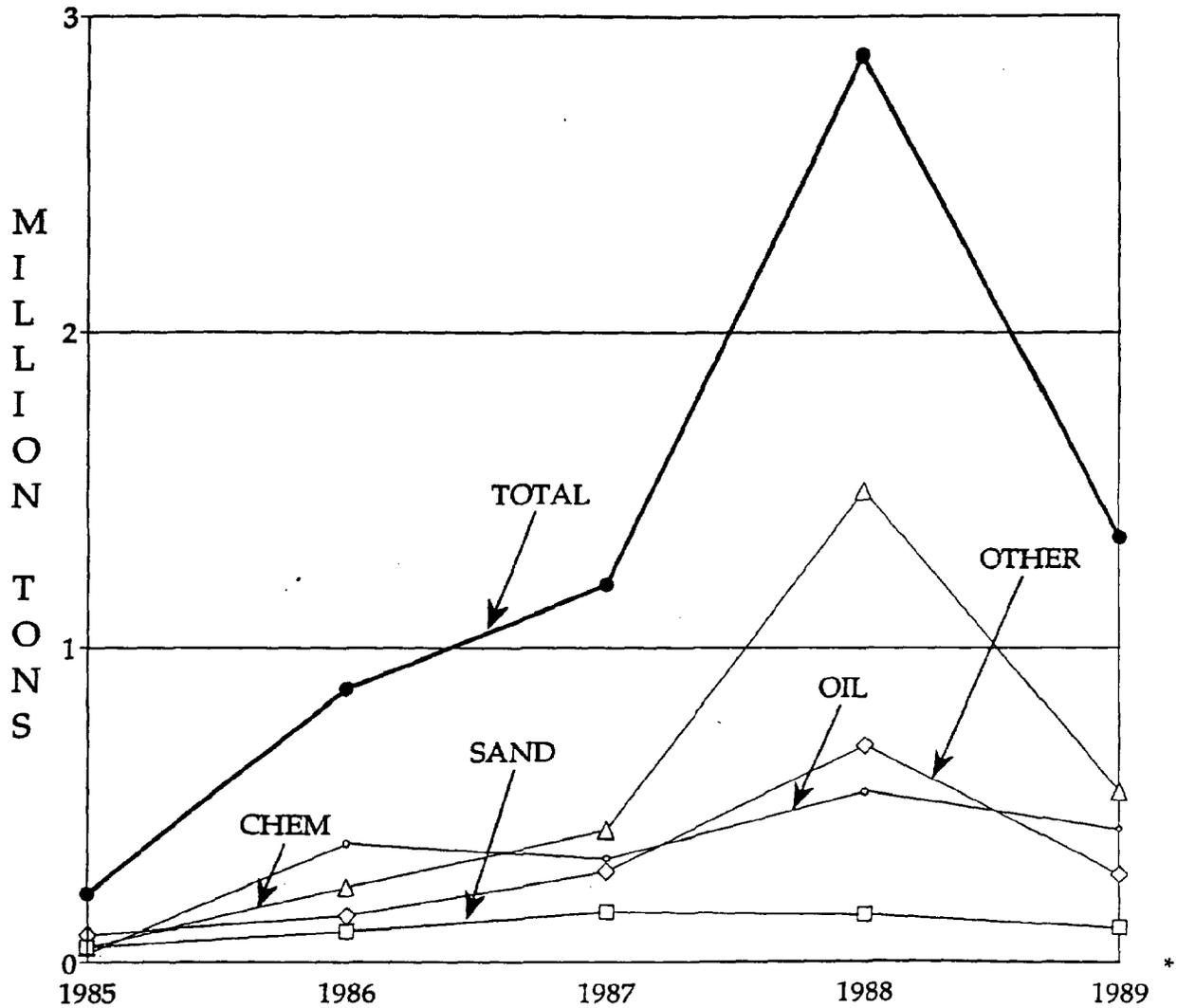
TENNESSEE-TOMBIGBEE WATERWAY - SOUTHBOUND

(1985 - 1989 ; BY COMMODITY)



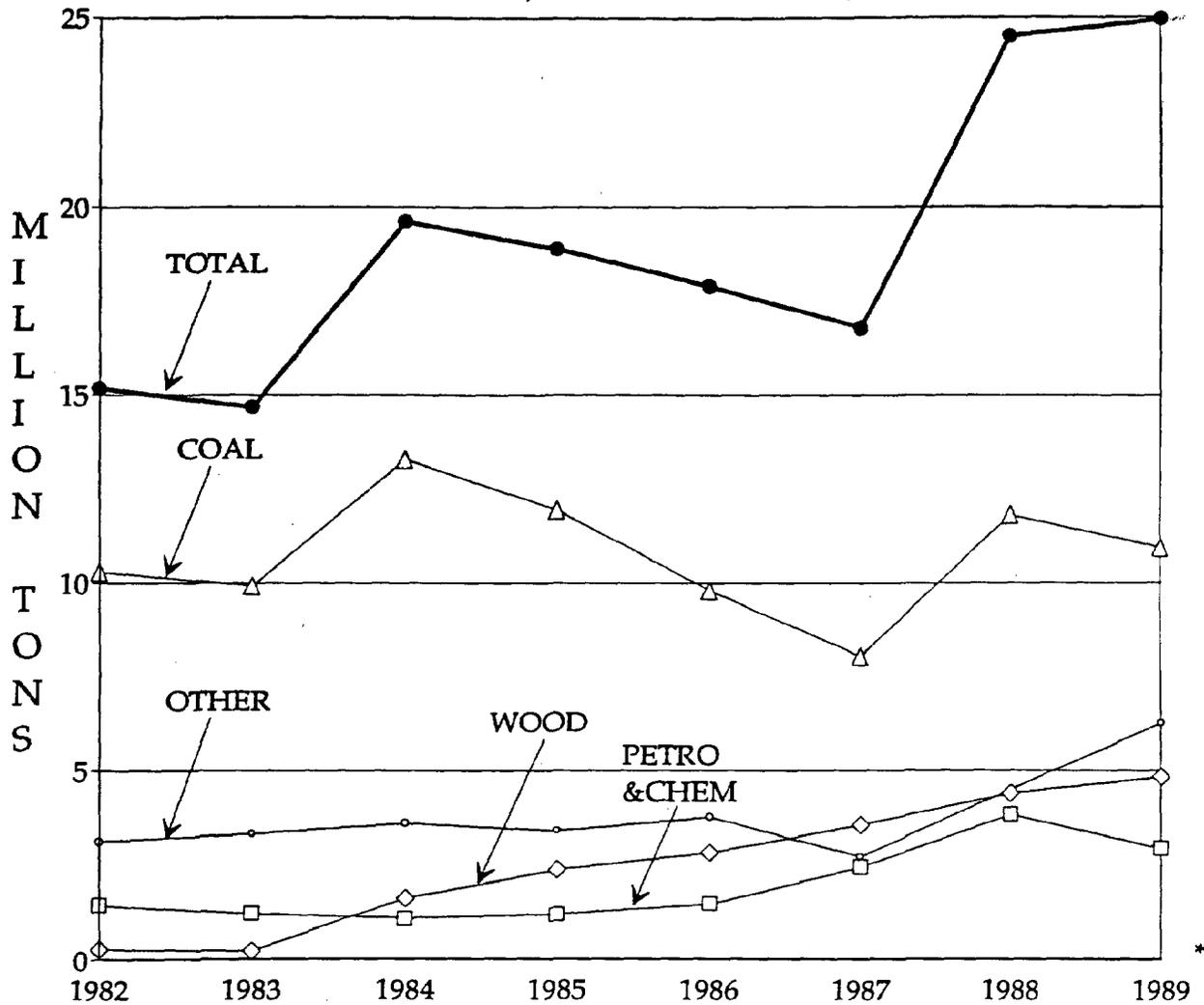
YEAR	1985	1986	1987	1988	1989 *
TOTAL	1.13	2.78	2.45	5.94	4.08
WOOD	0.07	0.48	0.71	1.46	1.63
COAL	0.57	1.27	0.85	2.29	1.14
SAND	0.31	0.71	0.66	1.45	0.87
PETRO & CHEM	0.01	0.04	0.08	0.24	0.44
OTHER	0.17	0.28	0.15	0.50	0.00

TENNESSEE - TOMBIGBEE WATERWAY - NORTHBOUND (1985 - 1989 ; BY COMMODITY)



YEAR	1985	1986	1987	1988	1989 *
TOTAL	0.22	0.87	1.20	2.88	1.35
CHEM	0.05	0.24	0.42	1.50	0.54
OIL	0.03	0.38	0.33	0.54	0.42
OTHER	0.09	0.15	0.29	0.69	0.28
SAND	0.05	0.10	0.16	0.15	0.11

BLACK WARRIOR RIVER - TOTAL (1982 - 1989 ; BY COMMODITY)



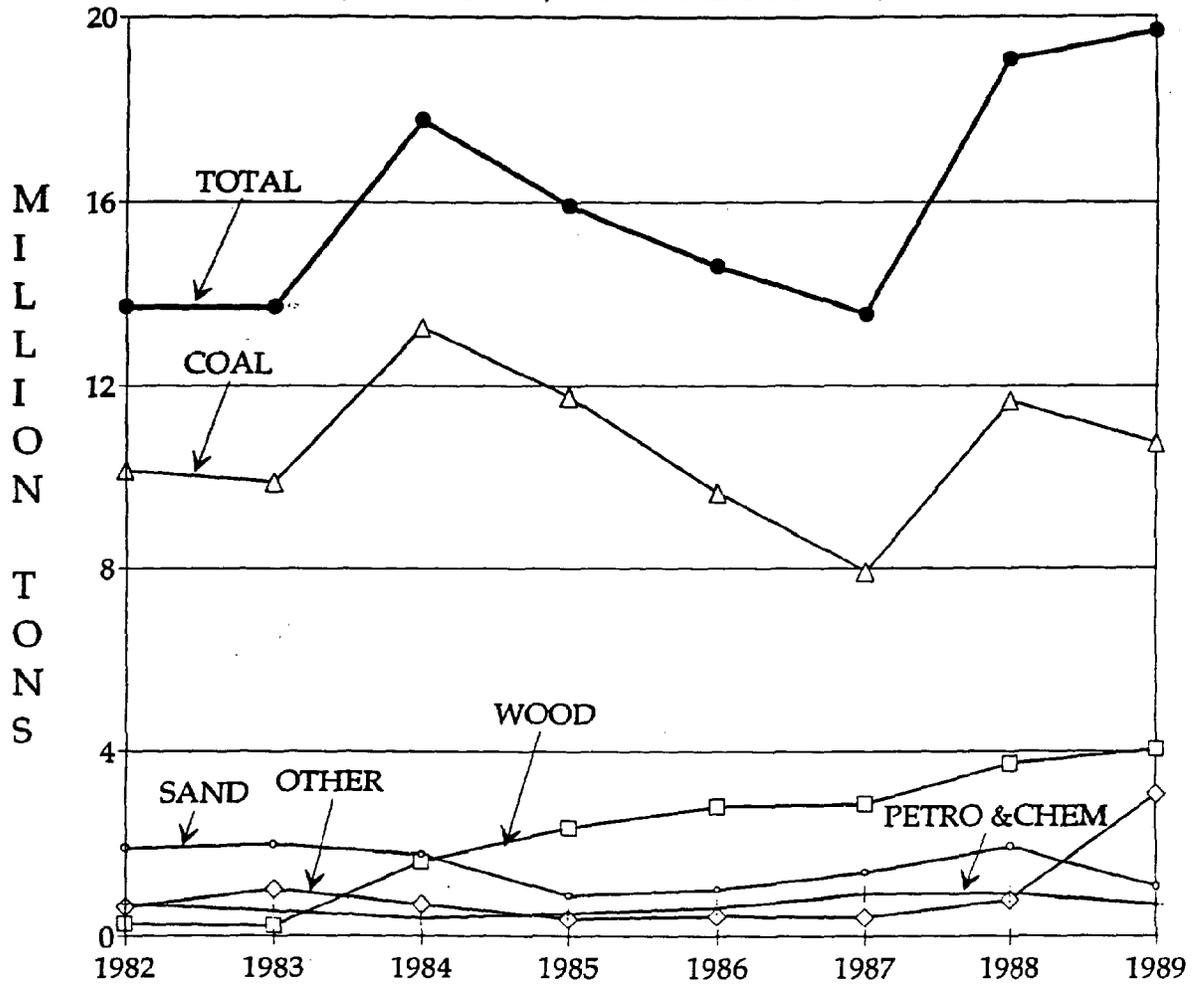
YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	15.16	14.68	19.60	18.89	17.87	16.76	24.49	24.94
COAL	10.29	9.91	13.28	11.93	9.80	8.06	11.80	10.92
OTHER	3.13	3.32	3.60	3.40	3.76	2.71	4.48	6.25
WOOD	0.29	0.23	1.63	2.37	2.83	3.55	4.39	4.83
PETRO & CHEM	1.45	1.22	1.09	1.19	1.48	2.44	3.82	2.94

6-26-1990

* ESTIMATED

BLACK WARRIOR RIVER - DOWNBOUND

(1982 - 1989 ; BY COMMODITY)

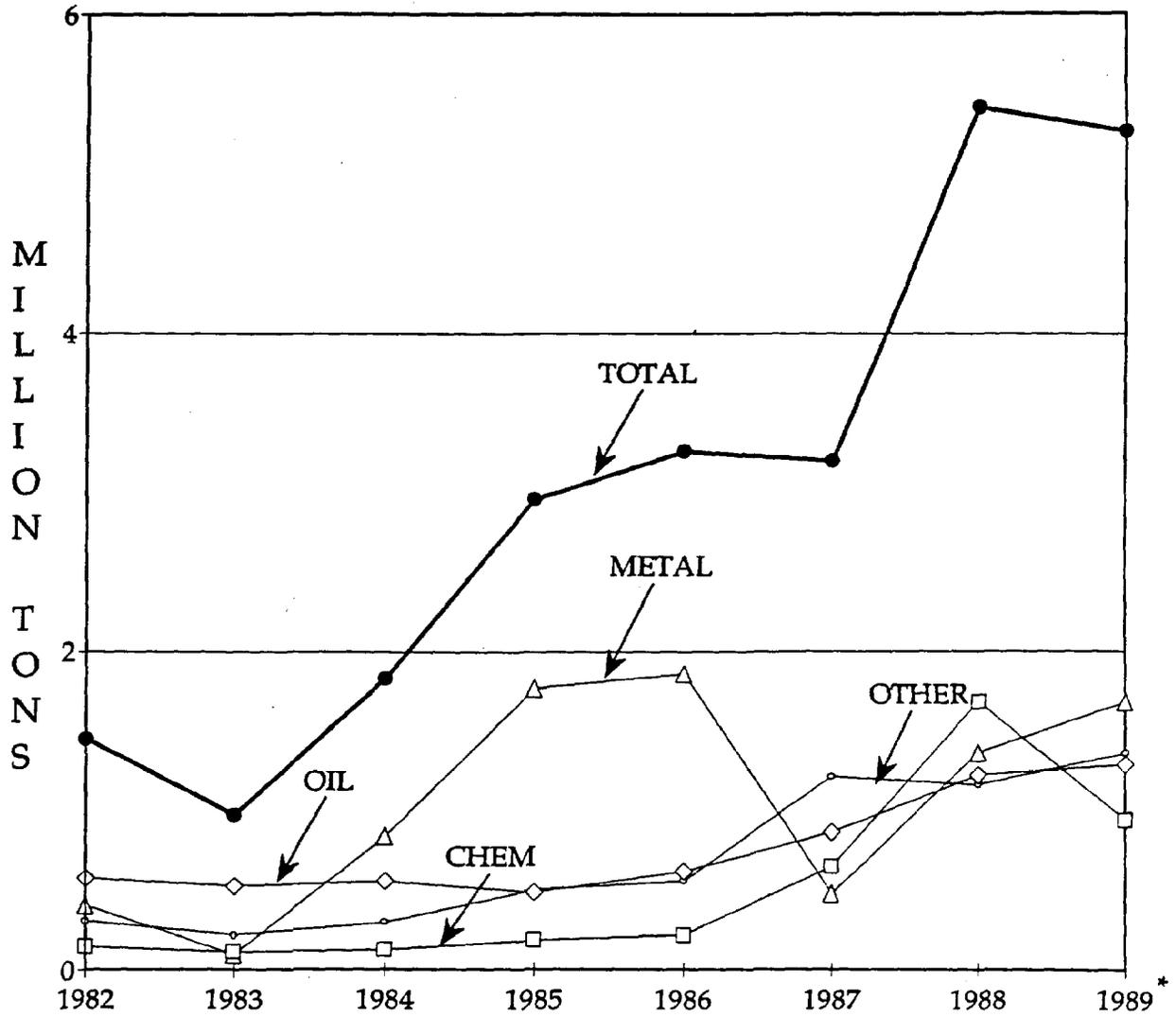


YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	13.71	13.71	17.77	15.93	14.61	13.56	19.06	19.68
COAL	10.15	9.89	13.26	11.77	9.67	7.94	11.67	10.75
WOOD	0.27	0.23	1.63	2.37	2.83	2.87	3.74	4.05
OTHER	0.65	1.03	0.70	0.39	0.45	0.42	0.79	3.09
SAND	1.92	2.00	1.78	0.89	1.02	1.40	1.94	1.08
PETRO & CHEM	0.72	0.56	0.40	0.51	0.64	0.93	0.92	0.71

6-25-1990

* ESTIMATED

BLACK WARRIOR RIVER - UPBOUND (1982 - 1989 ; BY COMMODITY)

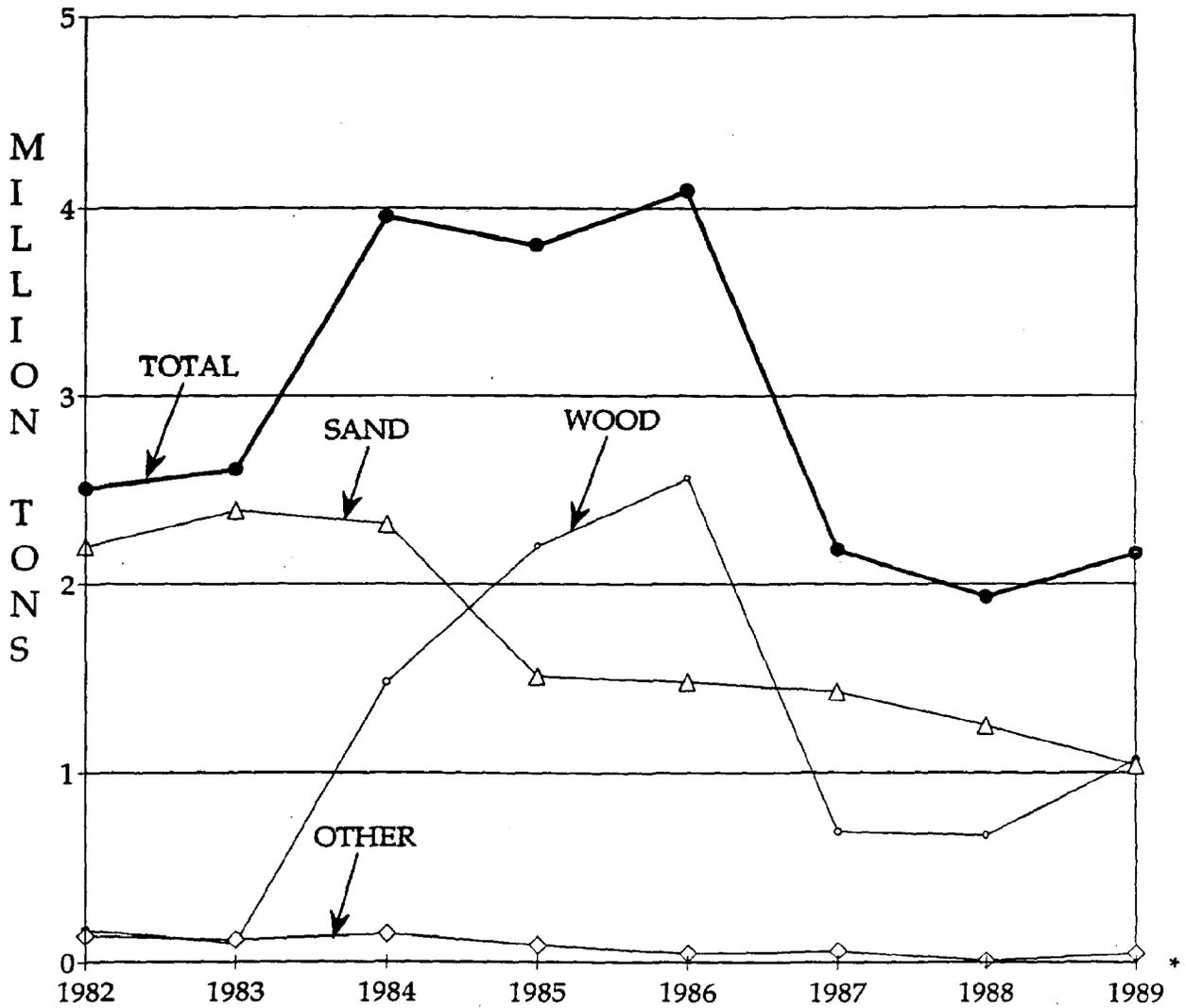


YEAR	1982	1983	1984	1985	1986	1987	1988	1989*
TOTAL	1.45	0.97	1.83	2.96	3.26	3.20	5.42	5.27
METAL	0.41	0.10	0.84	1.77	1.86	0.48	1.36	1.68
OTHER	0.31	0.22	0.30	0.51	0.56	1.21	1.16	1.36
OIL	0.58	0.53	0.56	0.49	0.62	0.86	1.22	1.29
CHEM	0.15	0.12	0.13	0.19	0.22	0.65	1.68	0.94

6-26-1990

* ESTIMATED

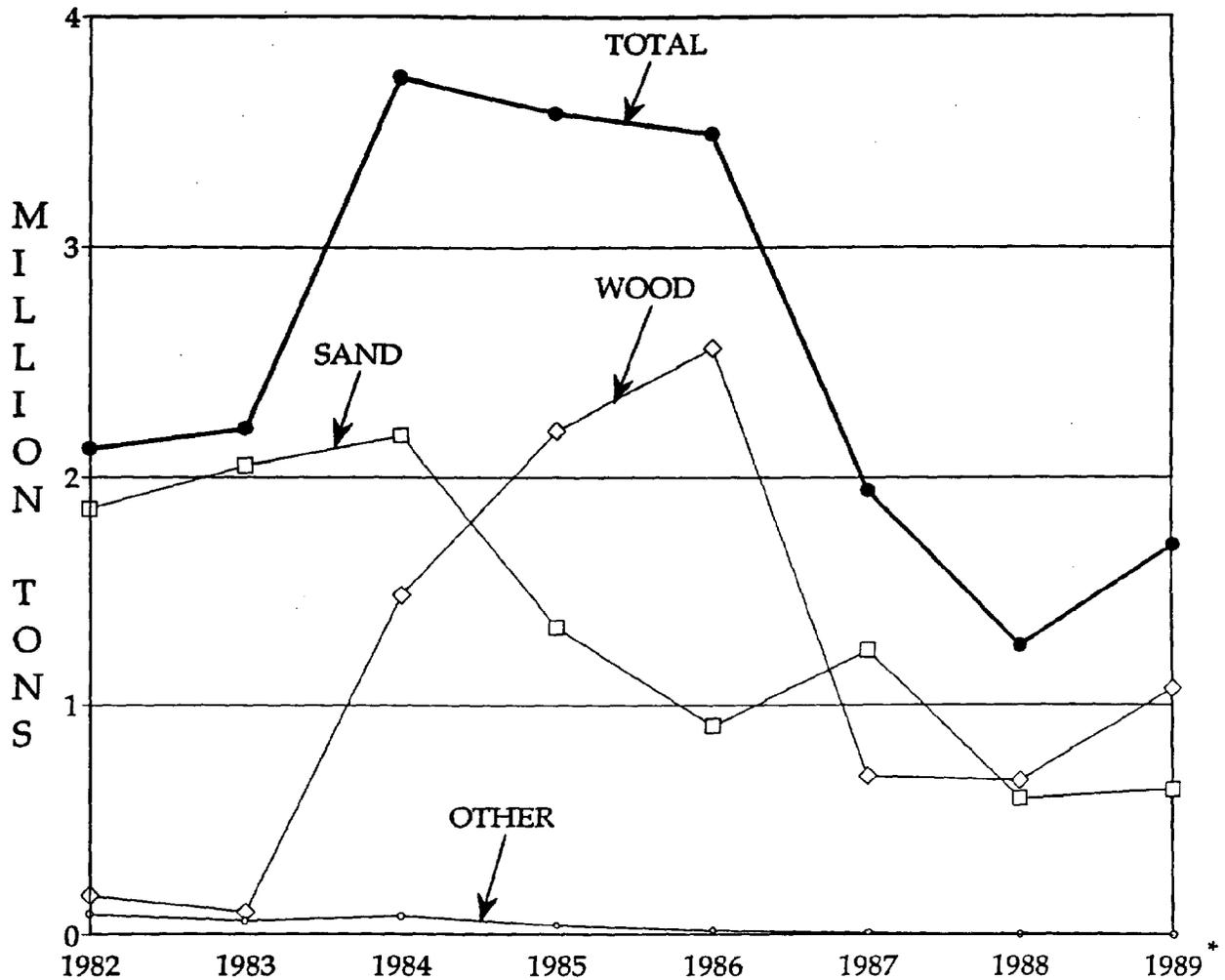
ALABAMA - COOSA RIVER - TOTAL (1982 - 1989 ; BY COMMODITY)



YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	2.51	2.61	3.95	3.80	4.09	2.18	1.93	2.16
WOOD	0.17	0.10	1.48	2.20	2.56	0.69	0.67	1.07
SAND	2.20	2.39	2.32	1.51	1.48	1.43	1.25	1.04
OTHER	0.14	0.12	0.15	0.09	0.05	0.06	0.01	0.05

ALABAMA-COOSA RIVER - DOWNBOUND

(1982 - 1989 ; BY COMMODITY)

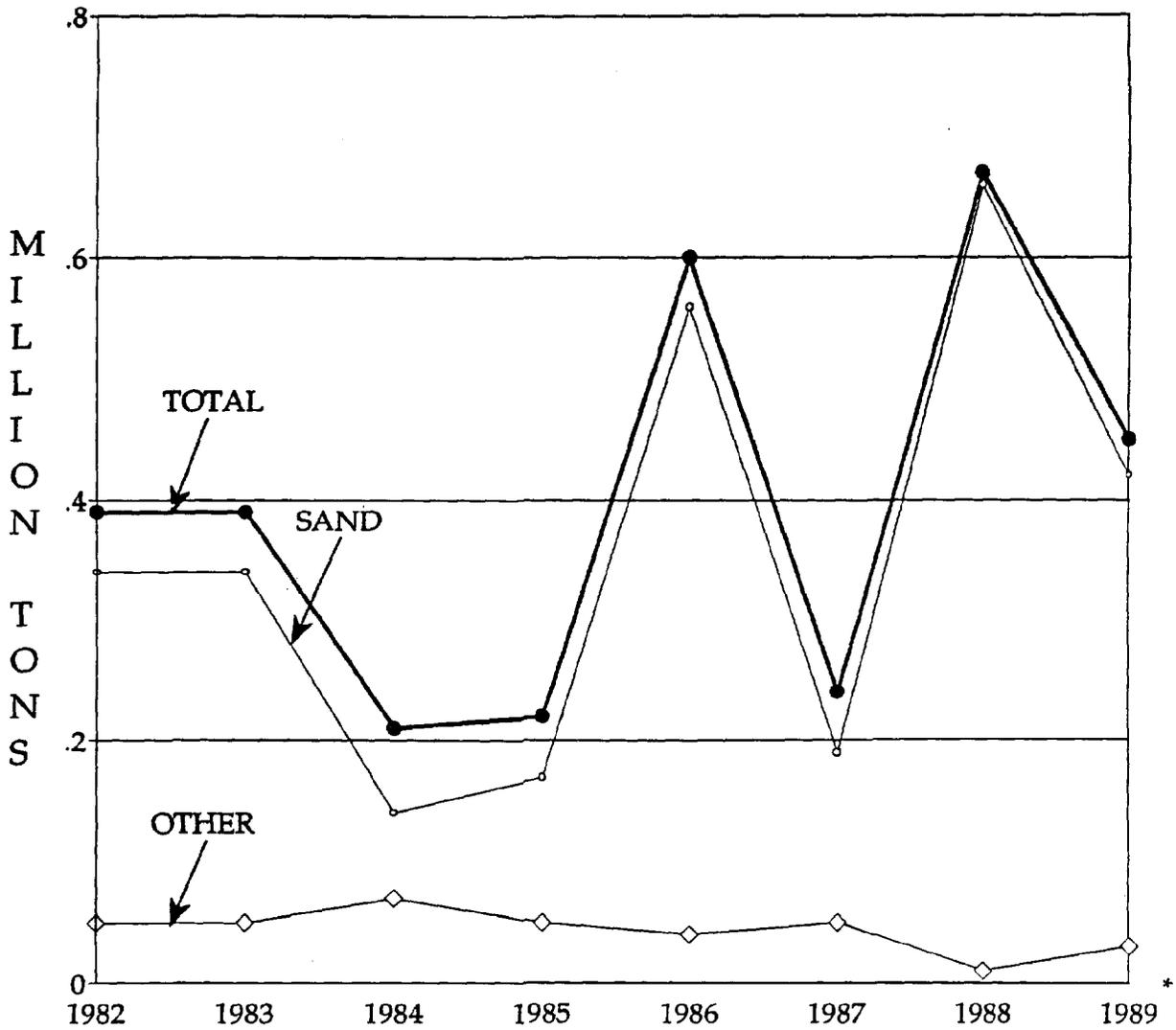


YEAR	1982	1983	1984	1985	1986	1987	1988	1989*
TOTAL	2.12	2.21	3.74	3.58	3.49	1.94	1.26	1.70
WOOD	0.17	0.10	1.48	2.20	2.56	0.69	0.67	1.07
SAND	1.86	2.05	2.18	1.34	0.91	1.24	0.59	0.63
OTHER	0.09	0.06	0.08	0.04	0.02	0.01	0.00	0.00

6-26-1990

* ESTIMATED

ALABAMA-COOSA RIVER - UPBOUND (1982 - 1989 ; BY COMMODITY)



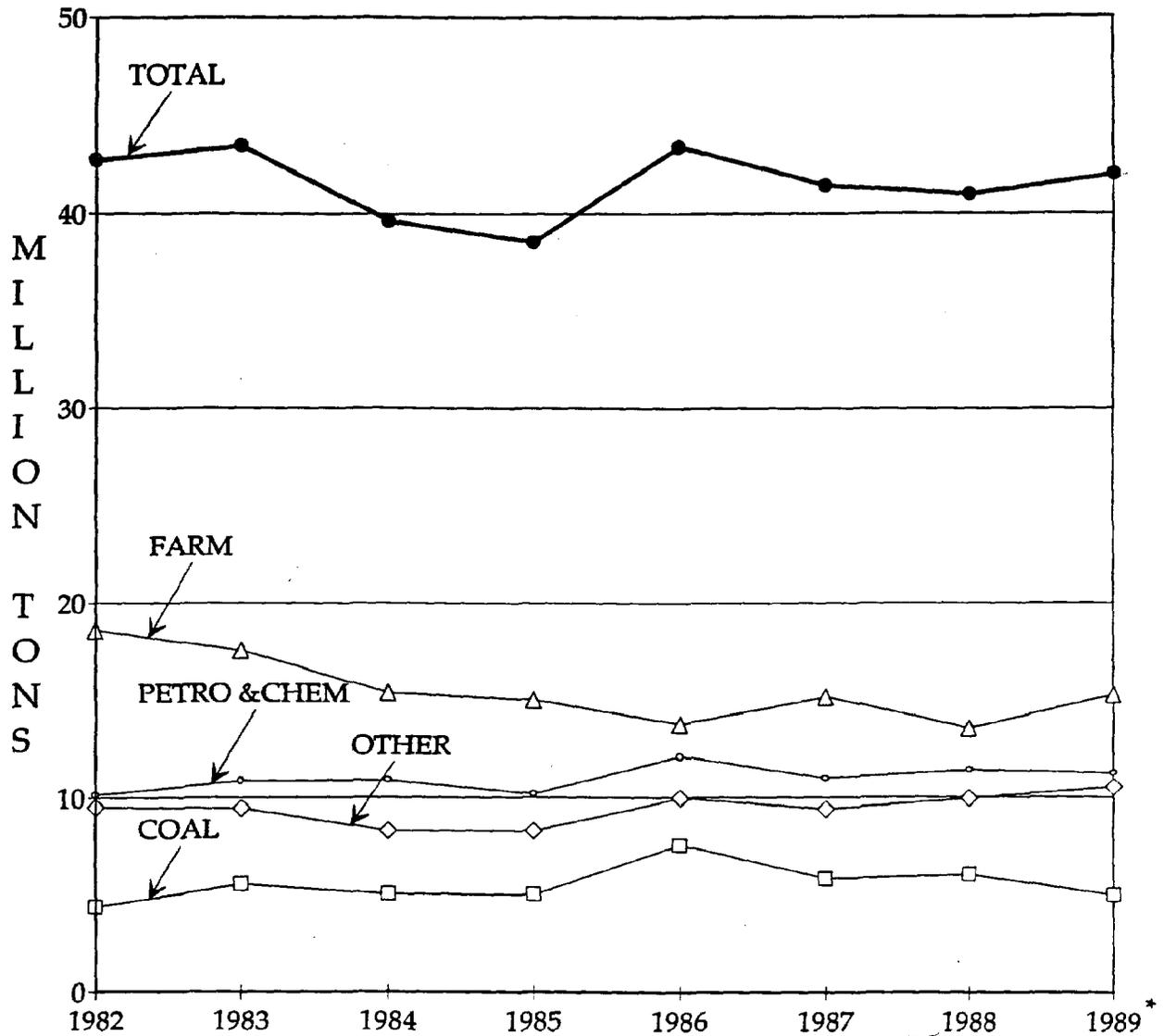
YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	0.39	0.39	0.21	0.22	0.60	0.24	0.67	0.45
SAND	0.34	0.34	0.14	0.17	0.56	0.19	0.66	0.42
OTHER	0.05	0.05	0.07	0.05	0.04	0.05	0.01	0.03

6-26-1990

* ESTIMATED

ILLINOIS WATERWAY - TOTAL

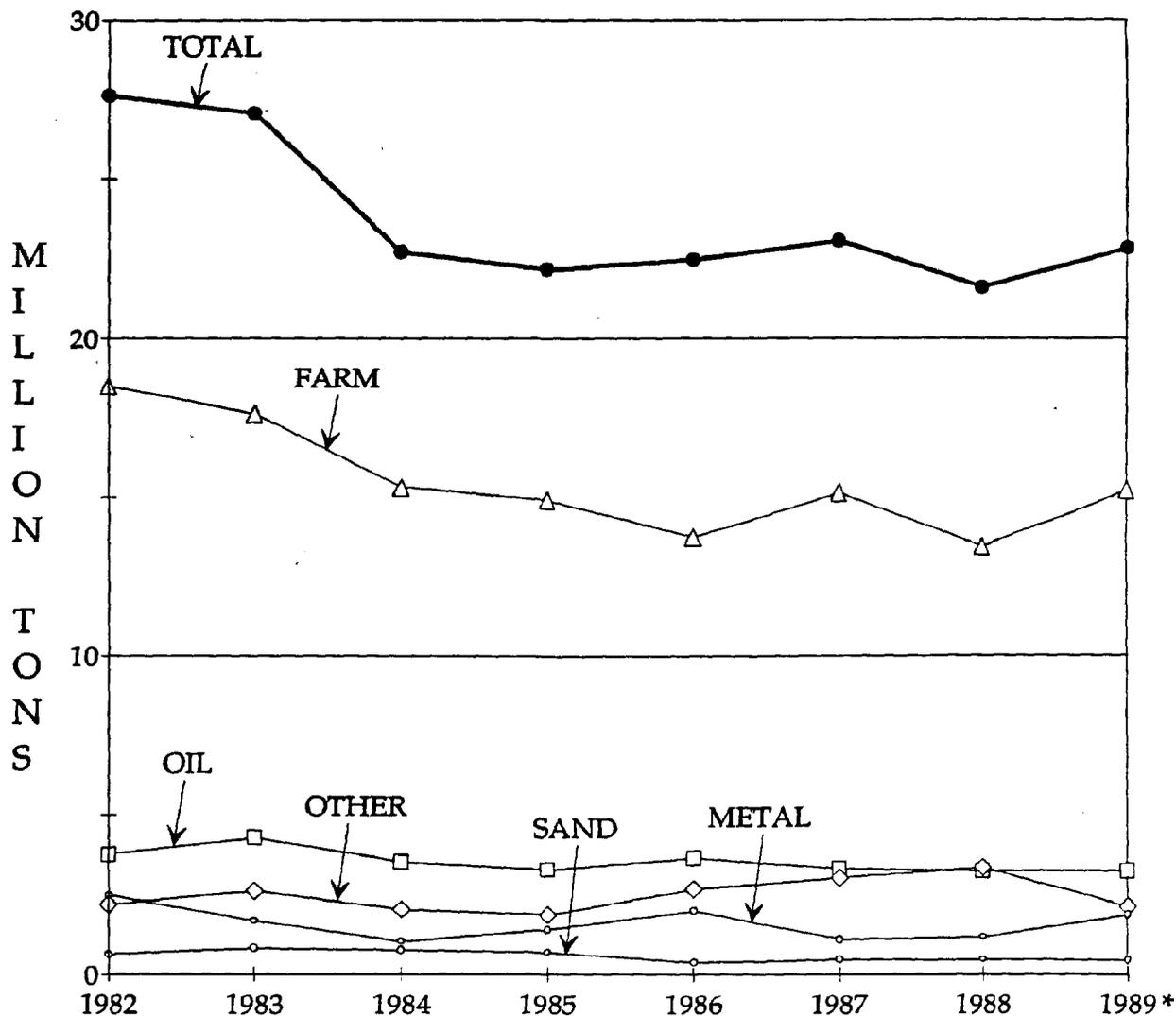
(1982 - 1989 ; BY COMMODITY)



YEAR	1982	1983	1984	1985	1986	1987	1988	1989*
TOTAL	42.72	43.48	39.63	38.53	43.42	41.41	40.97	42.01
FARM	18.63	17.56	15.39	15.02	13.78	15.17	13.56	15.26
PETRO & CHEM	10.14	10.88	10.89	10.18	12.12	10.99	11.41	11.23
OTHER	9.52	9.47	8.30	8.29	9.96	9.40	9.95	10.52
COAL	4.43	5.57	5.05	5.03	7.56	5.85	6.05	5.00

ILLINOIS WATERWAY - DOWNBOUND

(1982 -1989 ; BY COMMODITY)



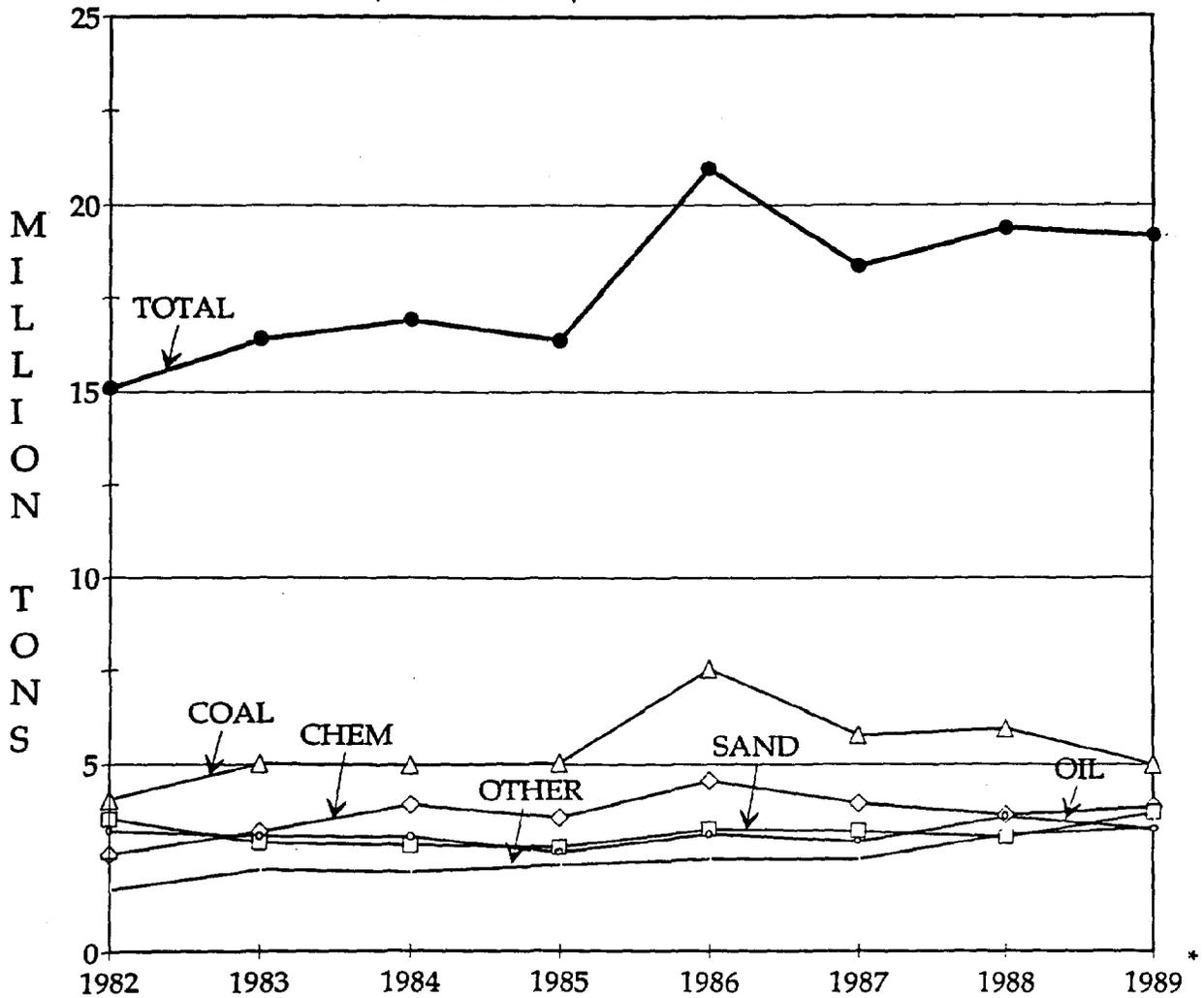
YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	27.64	27.09	22.72	22.18	22.47	23.07	21.61	22.84
FARM	18.49	17.63	15.32	14.91	13.74	15.15	13.44	15.20
OIL	3.78	4.29	3.53	3.28	3.65	3.31	3.22	3.22
OTHER	2.21	2.63	2.06	1.88	2.68	3.03	3.33	2.11
METAL	2.51	1.70	1.03	1.40	2.01	1.10	1.16	1.86
SAND	0.65	0.84	0.78	0.71	0.39	0.48	0.46	0.45

6-27-1990

* ESTIMATED

ILLINOIS WATERWAY - UPBOUND

(1982 - 1989 ; BY COMMODITY)



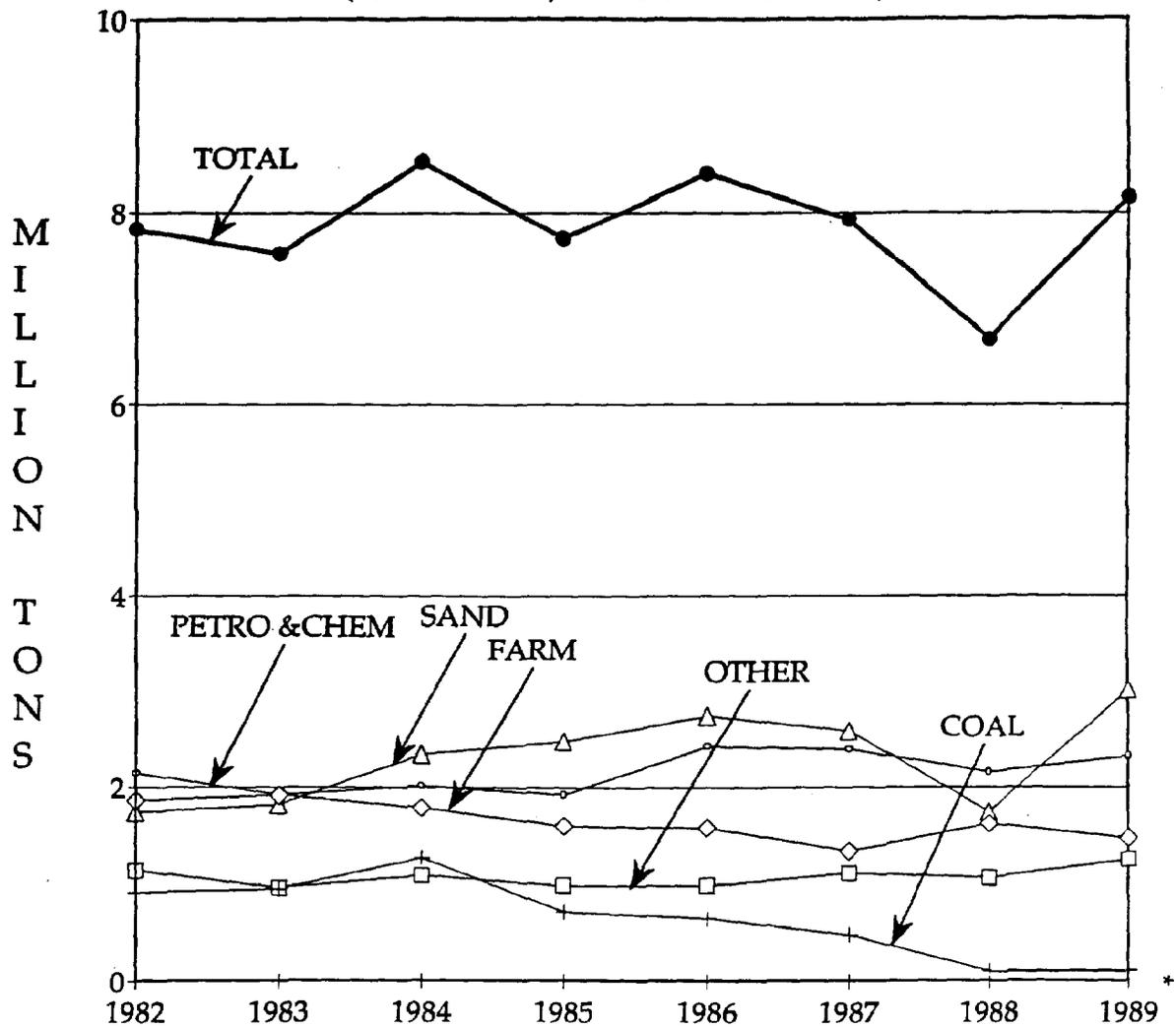
YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	15.08	16.39	16.91	16.35	20.95	18.34	19.36	19.17
COAL	4.06	5.01	4.98	5.03	7.53	5.76	5.93	5.00
CHEM	2.61	3.20	3.91	3.57	4.56	3.95	3.65	3.87
SAND	3.54	2.90	2.83	2.78	3.26	3.22	3.05	3.72
OTHER	1.65	2.20	2.13	2.32	2.47	2.48	3.12	3.31
OIL	3.22	3.08	3.06	2.65	3.13	2.93	3.61	3.27

6-27-1990

* ESTIMATED

MCCLELLAN - KERR WATERWAY - TOTAL

(1982 - 1989 ; BY COMMODITY)

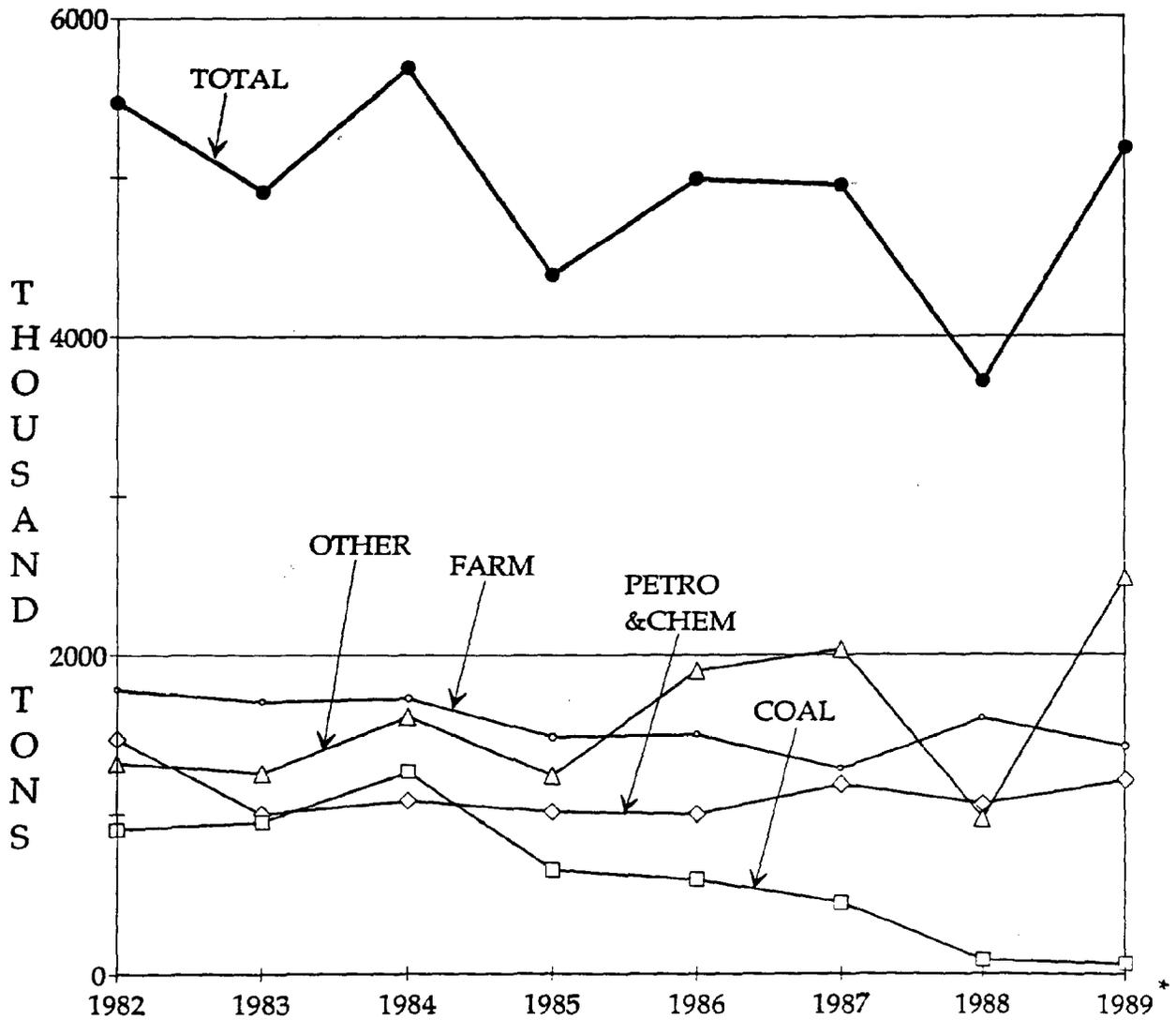


YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	7.82	7.57	8.52	7.73	8.40	7.92	6.68	8.16
SAND	1.74	1.82	2.35	2.49	2.75	2.59	1.74	3.01
PETRO & CHEM	2.15	1.92	2.02	1.93	2.43	2.40	2.16	2.32
FARM	1.87	1.92	1.79	1.60	1.58	1.34	1.62	1.47
OTHER	1.14	0.96	1.09	0.99	0.99	1.11	1.06	1.25
COAL	0.92	0.95	1.27	0.72	0.65	0.48	0.10	0.11

6-27-1990

* ESTIMATED

McCLELLAN-KERR WATERWAY - DOWNBOUND (1982 - 1989 ; BY COMMODITY)



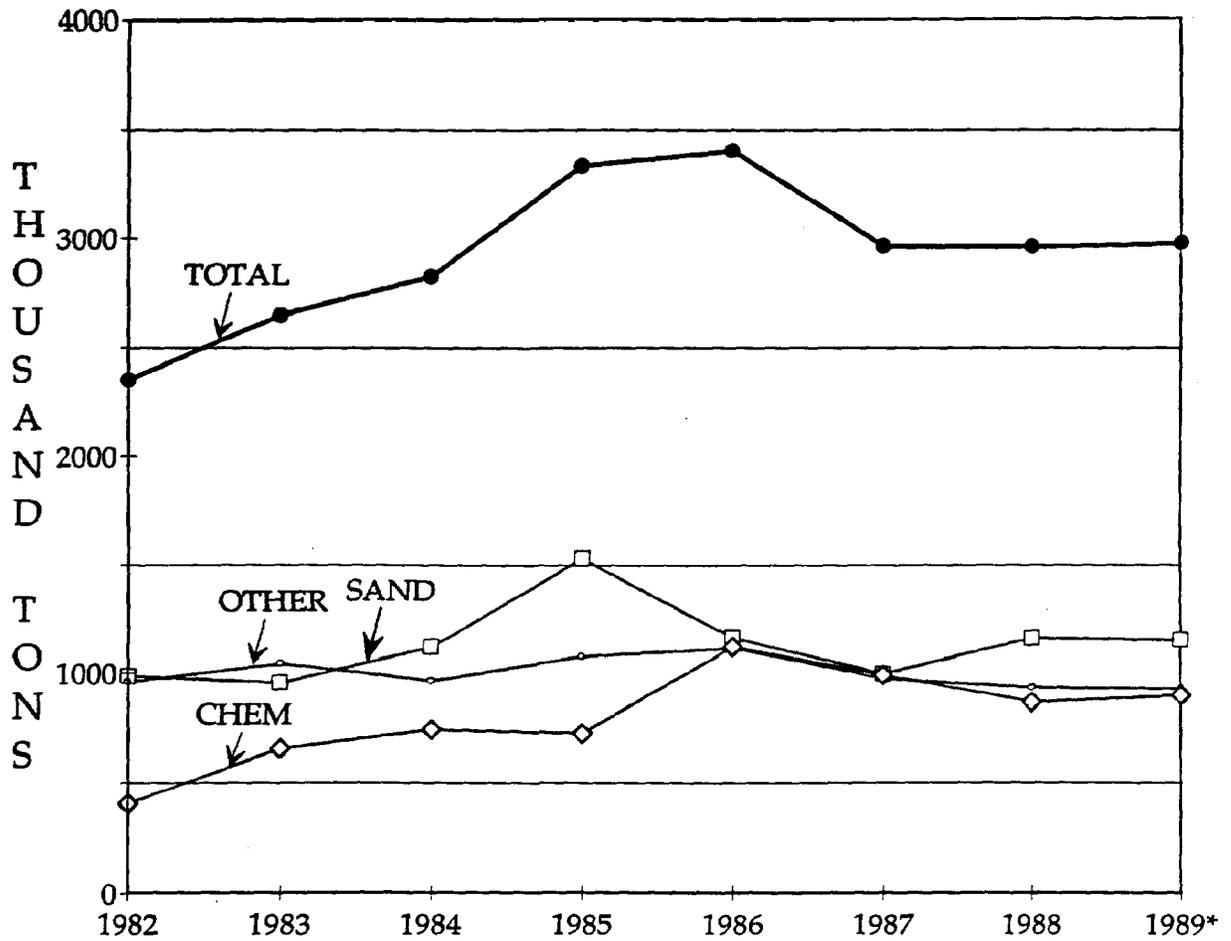
YEAR	1982	1983	1984	1985	1986	1987	1988	1989*
TOTAL	5472	4914	5691	4392	4991	4948	3712	5179
OTHER	1320	1258	1613	1243	1898	2031	969	2483
FARM	1775	1704	1726	1483	1497	1283	1597	1422
PETRO & CHEM	1472	1002	1087	1016	1003	1187	1060	1209
COAL	905	950	1265	650	593	447	86	65

6-27-1990

*ESTIMATED

McCLELLAN - KERR WATERWAY - UPBOUND

(1982 -1989 ; BY COMMODITY)



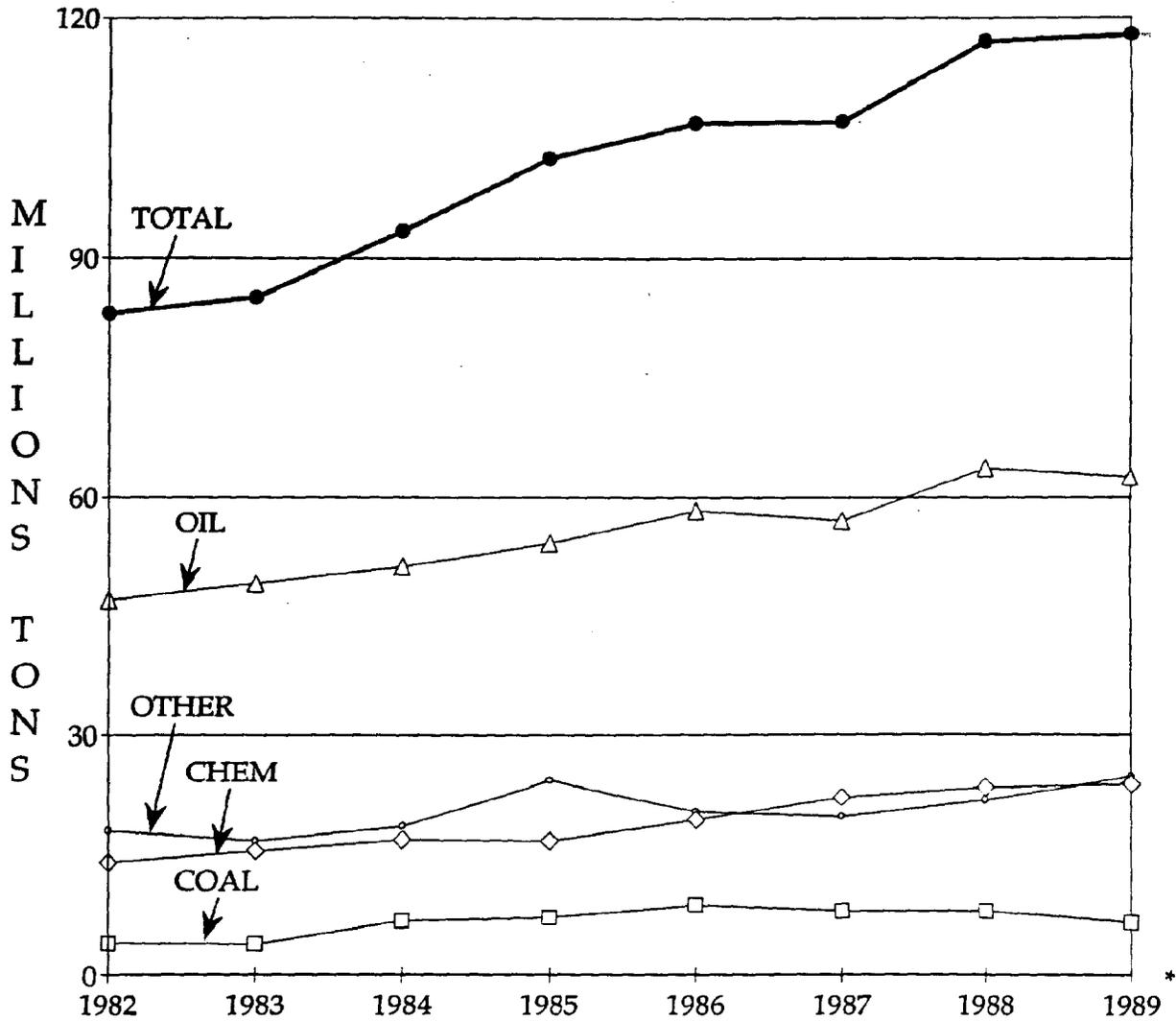
YEAR	1982	1983	1984	1985	1986	1987	1988	1989*
TOTAL	2353	2652	2830	3333	3405	2967	2964	2980
SAND	987	954	1120	1530	1166	998	1161	1152
OTHER	960	1042	965	1078	1117	976	935	930
CHEM	406	656	745	725	1122	993	868	898

6-27-1990

* ESTIMATED

GULF INTRACOASTAL WATERWAY - TOTAL

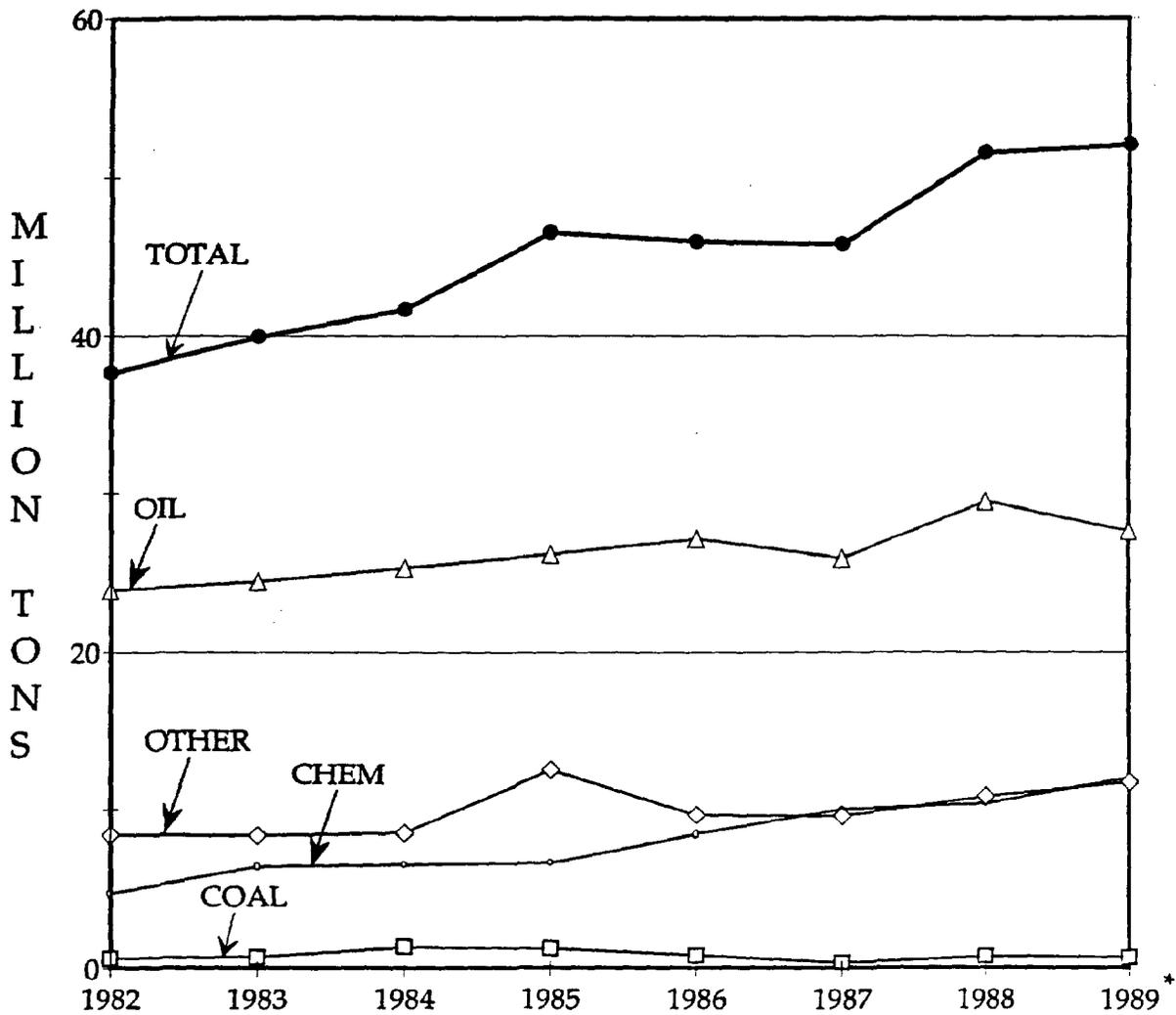
(1982 - 1989 ; BY COMMODITY)



YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	82.98	85.09	93.44	102.45	106.87	107.00	117.10	117.90
OIL	46.93	48.98	51.20	54.17	58.33	57.04	63.79	62.57
OTHER	17.99	16.72	18.55	24.32	20.37	19.72	21.87	24.82
CHEM	14.05	15.49	16.90	16.76	19.38	22.22	23.45	23.88
COAL	4.01	3.91	6.79	7.21	8.79	8.02	7.99	6.63

GULF INTRACOASTAL WATERWAY - WESTBOUND

(1982 - 1989 ; BY COMMODITY)



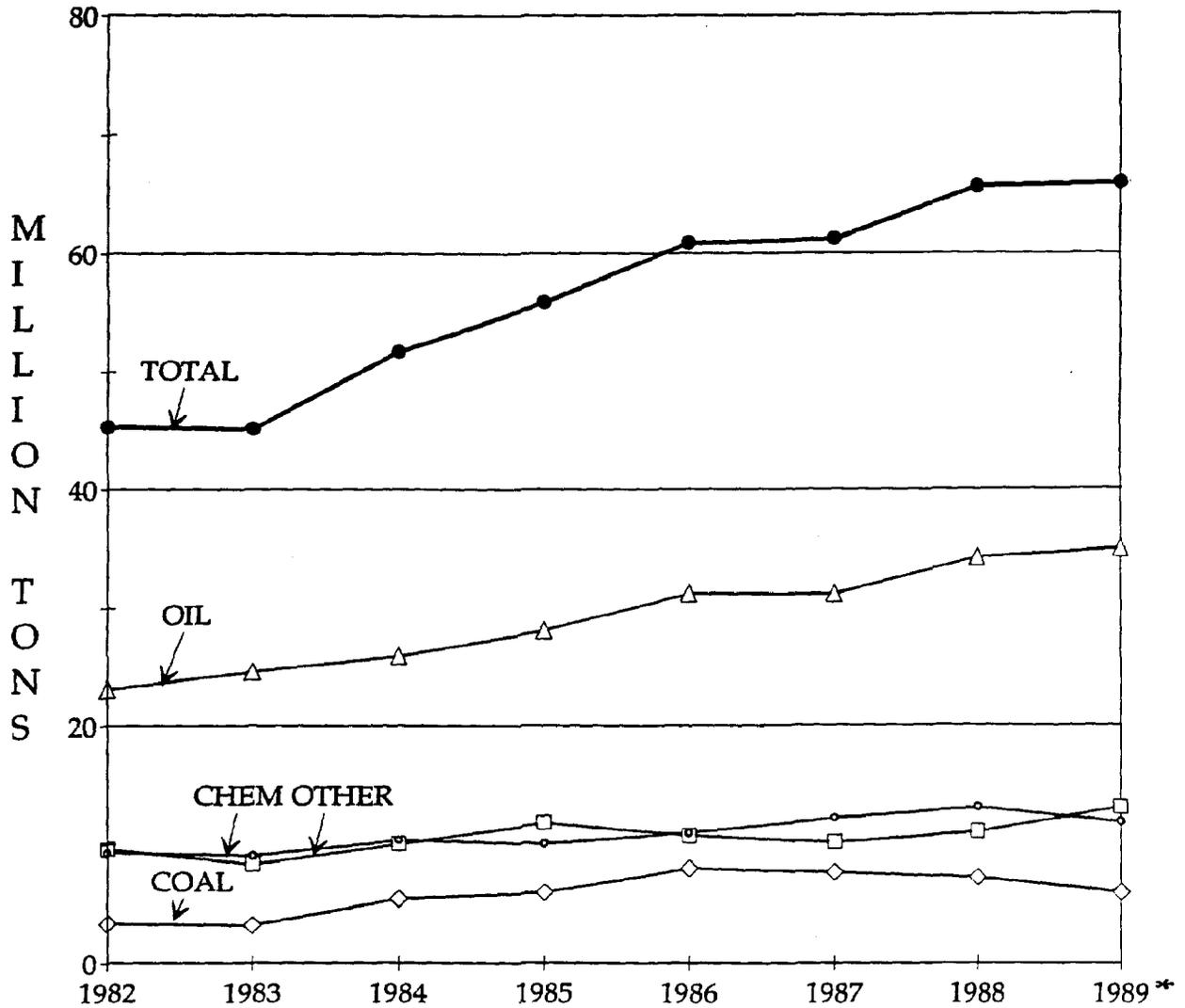
YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	37.64	39.96	41.68	46.58	45.98	45.82	51.53	52.05
OIL	23.85	24.43	25.29	26.14	27.10	25.88	29.54	27.60
CHEM	4.76	6.45	6.53	6.65	8.42	10.03	10.39	12.02
OTHER	8.40	8.38	8.51	12.53	9.64	9.55	10.83	11.73
COAL	0.63	0.70	1.35	1.26	0.82	0.36	0.77	0.70

6-27-1990

* ESTIMATED

GULF INTRACOASTAL WATERWAY - EASTBOUND

(1982 - 1989 ; BY COMMODITY)

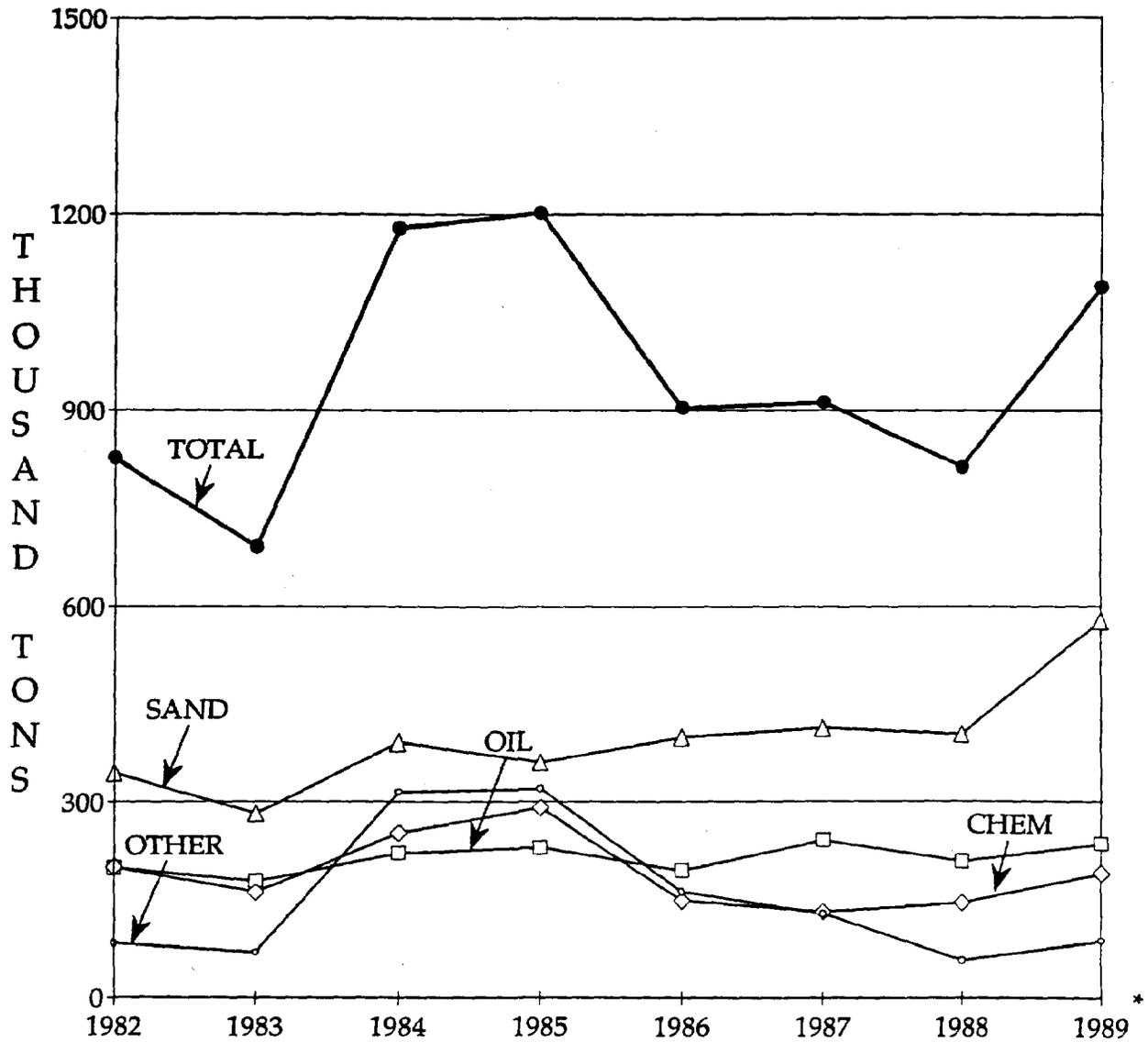


YEAR	1982	1983	1984	1985	1986	1987	1988	1989*
TOTAL	45.34	45.14	51.76	55.88	60.89	61.18	65.57	65.85
OIL	23.08	24.55	25.91	28.03	31.23	31.15	34.25	34.97
OTHER	9.60	8.34	10.04	11.80	10.73	10.18	11.04	13.09
CHEM	9.29	9.04	10.37	10.10	10.96	12.19	13.07	11.86
COAL	3.37	3.21	5.44	5.95	7.97	7.66	7.21	5.93

6-27-1990

* ESTIMATED

APALACHICOLA RIVER - TOTAL (1982 - 1989 ; BY COMMODITY)



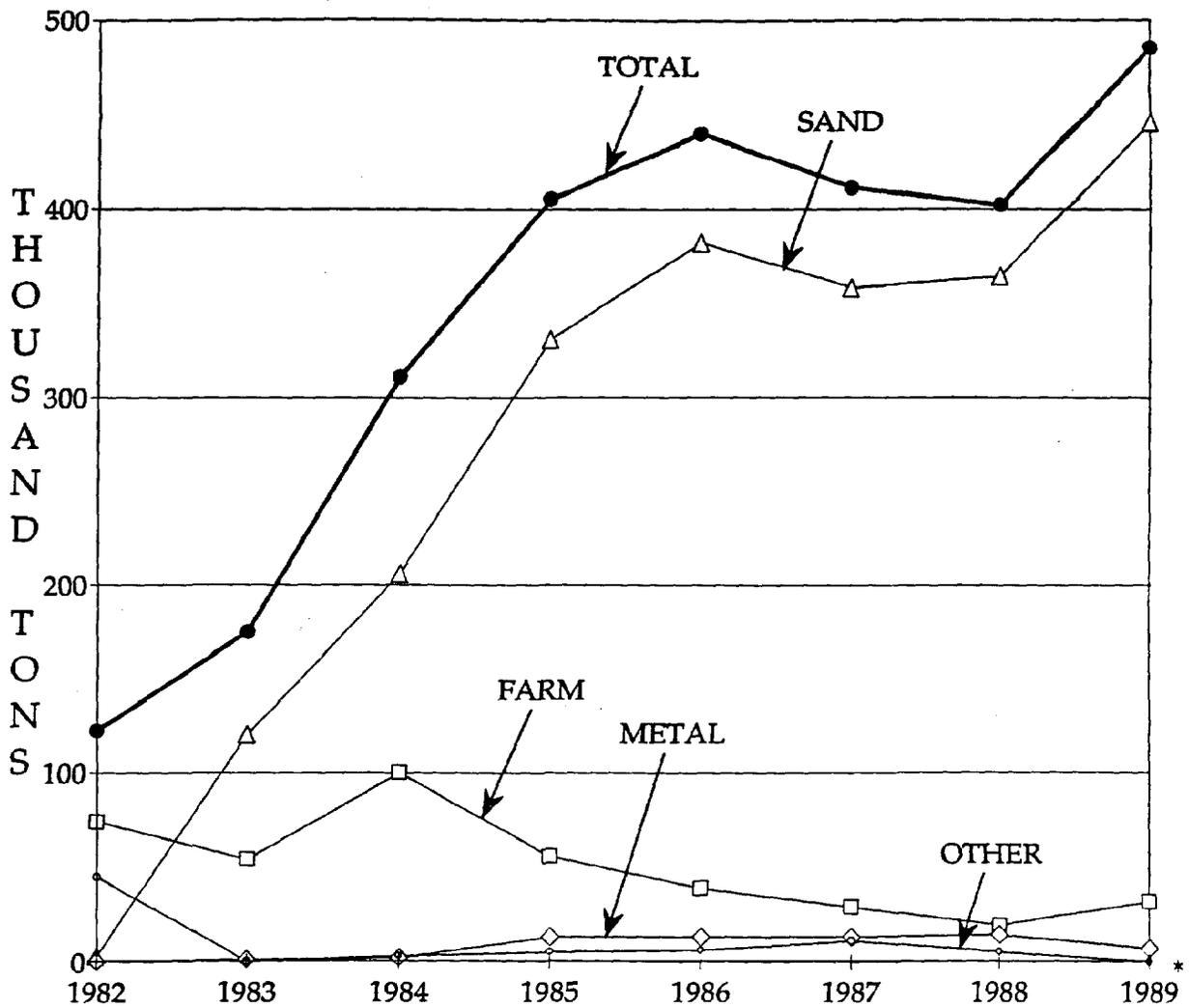
YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	826	690	1179	1202	903	912	813	1089
SAND	344	282	391	361	399	412	403	578
OIL	199	178	221	230	194	241	208	235
CHEM	200	161	252	291	148	131	145	190
OTHER	83	69	315	320	162	128	57	86

5-18-1990

* ESTIMATED

APALACHICOLA RIVER - DOWNBOUND

(1982 - 1989 ; BY COMMODITY)



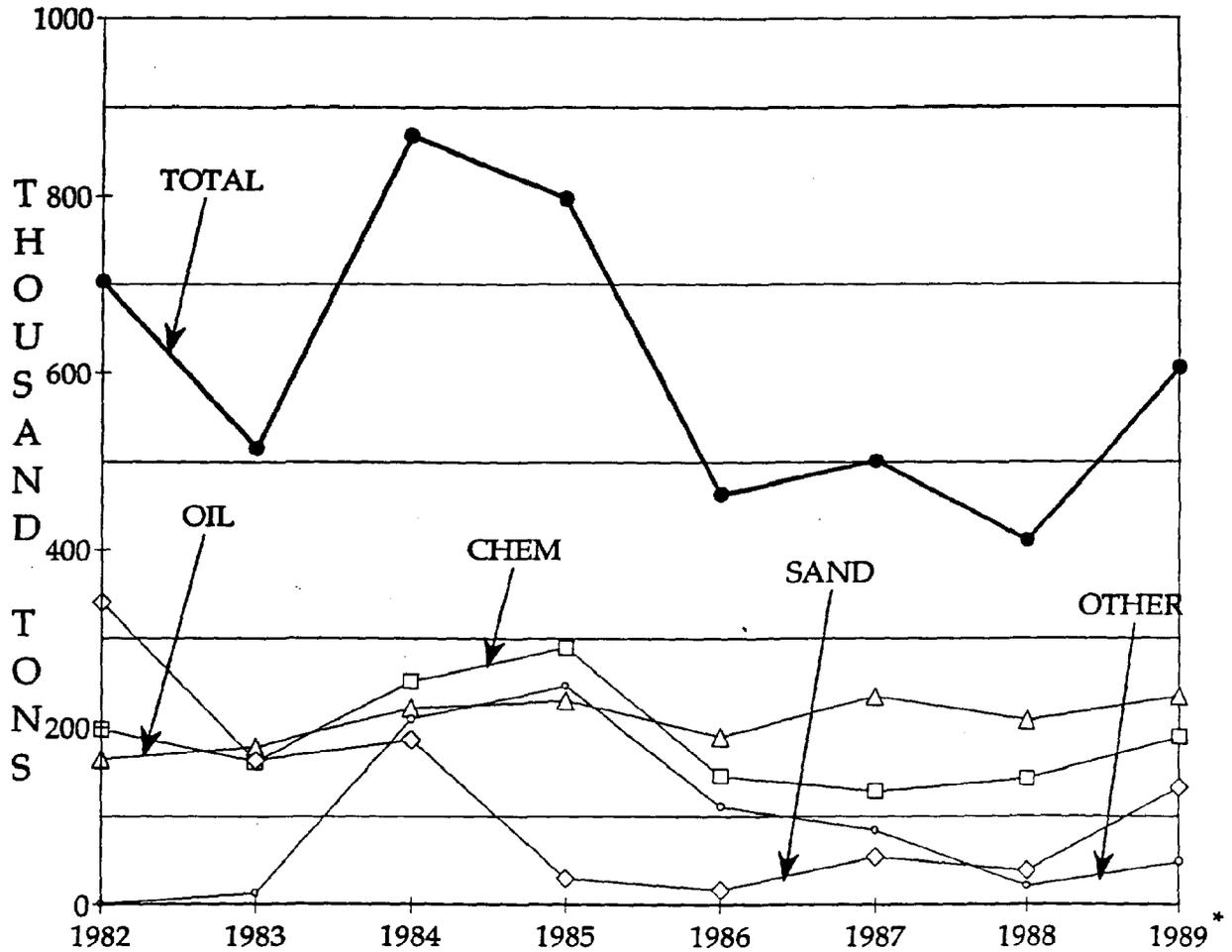
YEAR	1982	1983	1984	1985	1986	1987	1988	1989*
TOTAL	122	175	311	405	440	411	402	485
SAND	3	120	206	331	382	358	364	446
FARM	74	54	100	56	39	29	19	32
METAL	0	1	2	13	13	13	14	7
OTHER	45	0	3	5	6	11	5	0

6-27-1990

*ESTIMATED

APALACHICOLA RIVER - UPBOUND

(1982 - 1989 ; BY COMMODITY)

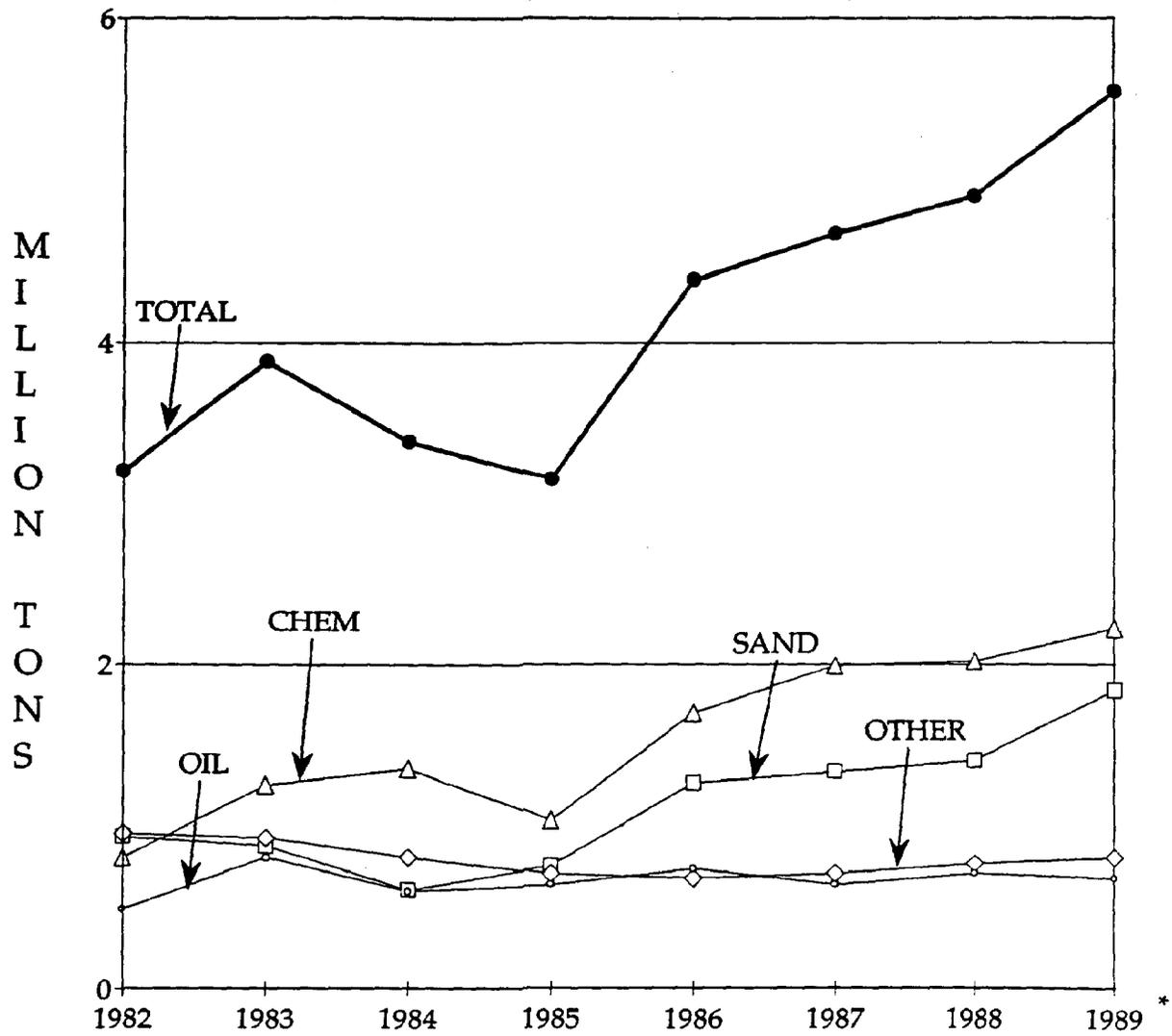


YEAR	1982	1983	1984	1985	1986	1987	1988	1989*
TOTAL	703	515	868	797	463	501	410	605
OIL	164	178	221	230	190	235	208	235
CHEM	197	161	252	290	145	128	142	189
SAND	341	163	186	30	17	54	39	132
OTHER	1	13	209	247	111	84	21	49

6-27-1990

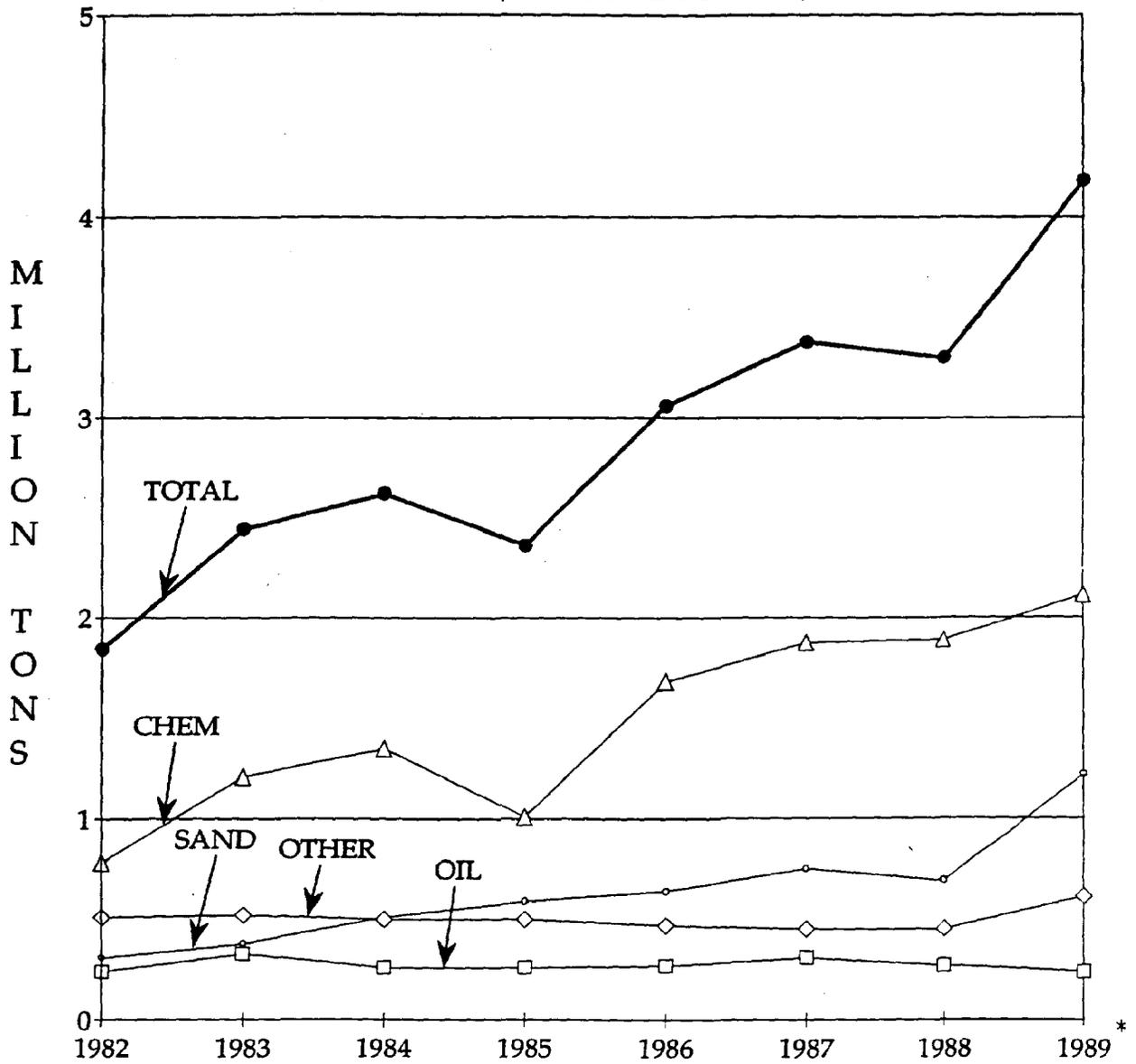
*ESTIMATED

ATLANTIC INTRACOASTAL WATERWAY - TOTAL (1982 - 1989 ; BY COMMODITY)



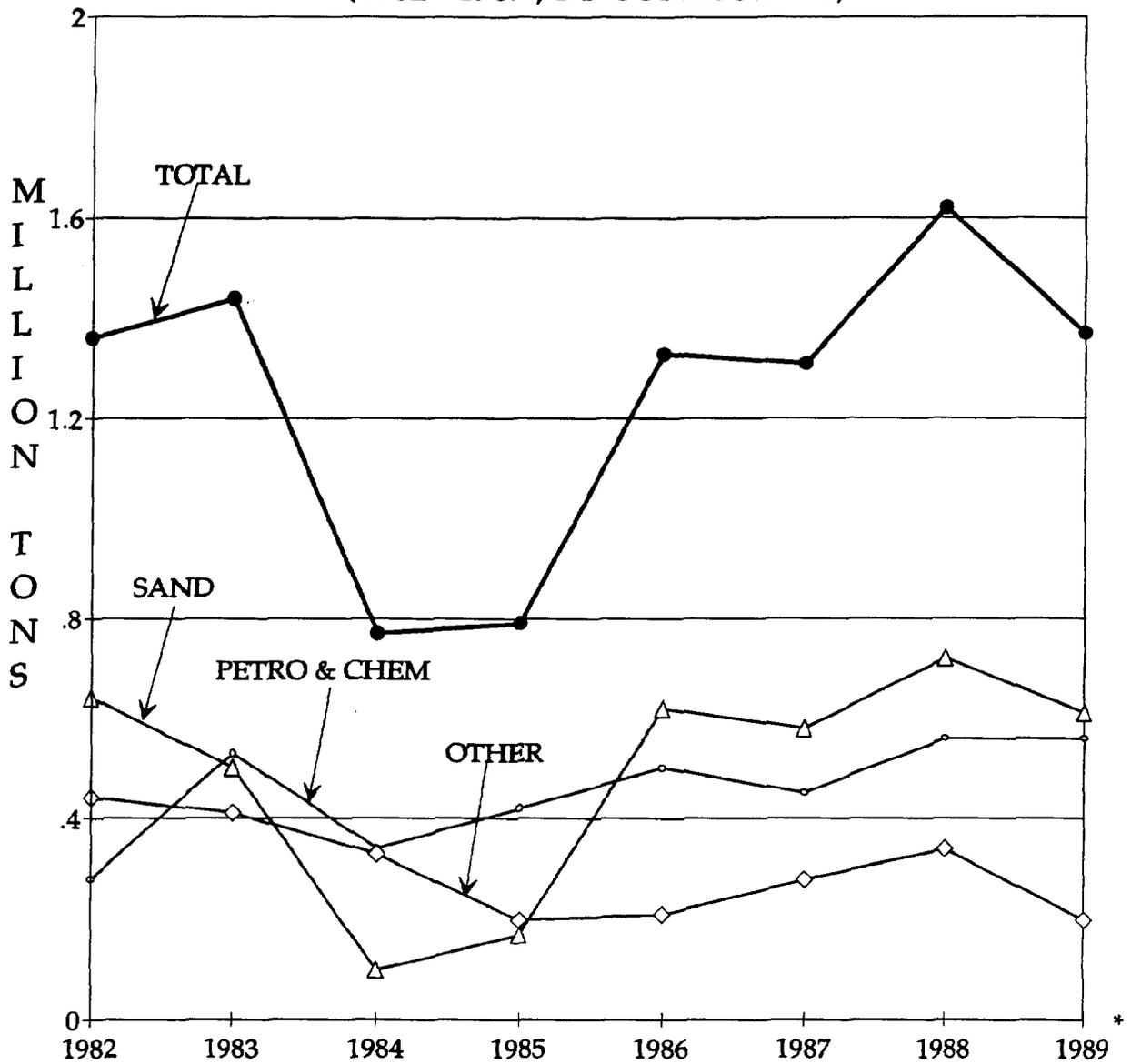
YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	3.2	3.88	3.38	3.15	4.39	4.68	4.91	5.55
CHEM	0.81	1.26	1.36	1.04	1.70	1.99	2.02	2.22
SAND	0.94	0.88	0.61	0.76	1.27	1.34	1.41	1.84
OTHER	0.96	0.93	0.81	0.71	0.68	0.71	0.77	0.81
OIL	0.49	0.81	0.60	0.64	0.74	0.64	0.71	0.68

ATLANTIC INTRACOASTAL WATERWAY-SOUTHBOUND (1982 - 1989 ; BY COMMODITY)



YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	1.84	2.44	2.62	2.36	3.06	3.38	3.30	4.18
CHEM	0.78	1.21	1.35	1.01	1.68	1.87	1.89	2.11
SAND	0.31	0.38	0.51	0.59	0.64	0.75	0.69	1.22
OTHER	0.51	0.52	0.50	0.50	0.47	0.45	0.45	0.61
OIL	0.24	0.33	0.26	0.26	0.27	0.31	0.27	0.24

ATLANTIC INTRACOASTAL WATERWAY-NORTHBOUND (1982 - 1989 ; BY COMMODITY)



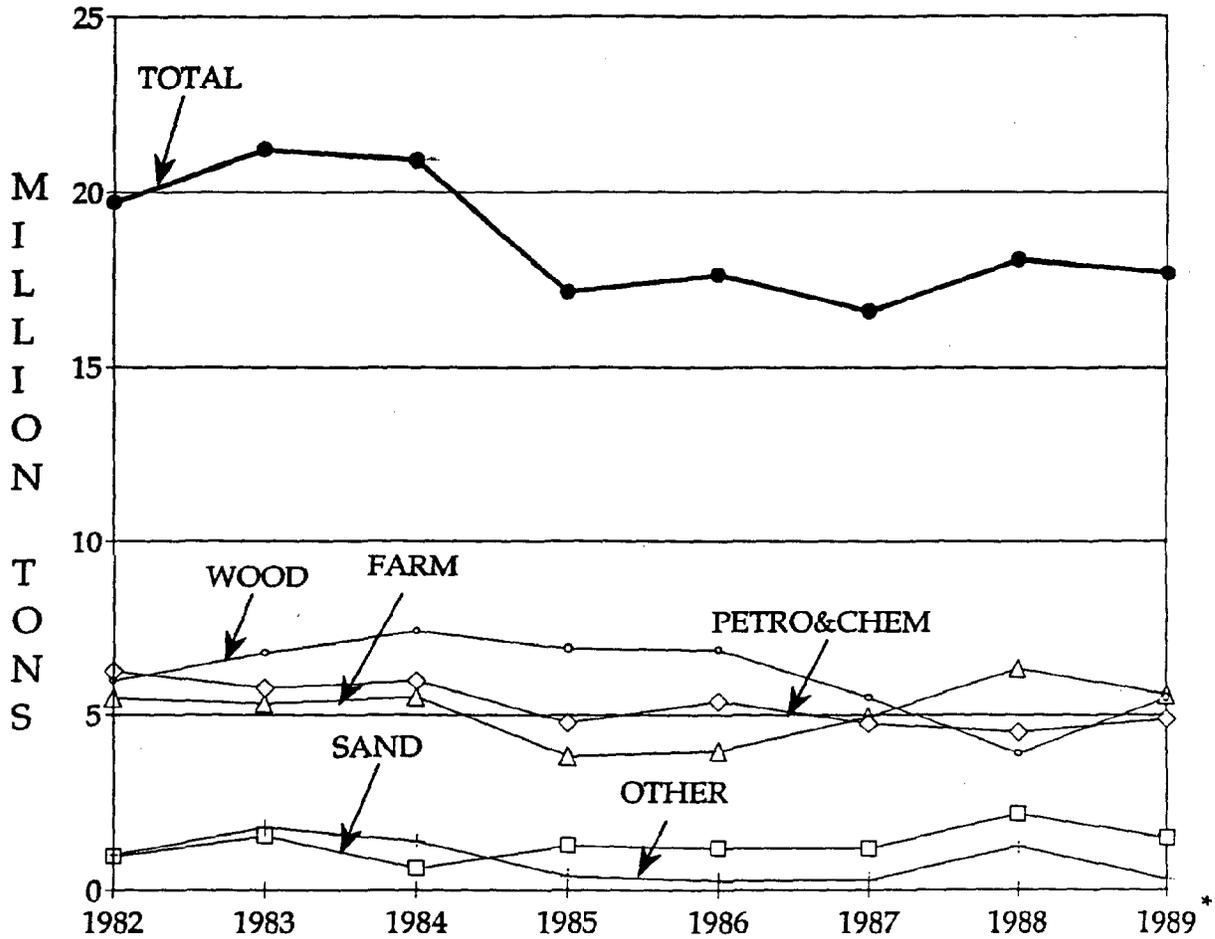
YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	1.36	1.44	0.77	0.79	1.33	1.31	1.62	1.37
SAND	0.64	0.50	0.10	0.17	0.62	0.58	0.72	0.61
PETRO & CHEM	0.28	0.53	0.34	0.42	0.50	0.45	0.56	0.56
OTHER	0.44	0.41	0.33	0.20	0.21	0.28	0.34	0.20

6-27-1990

* ESTIMATED

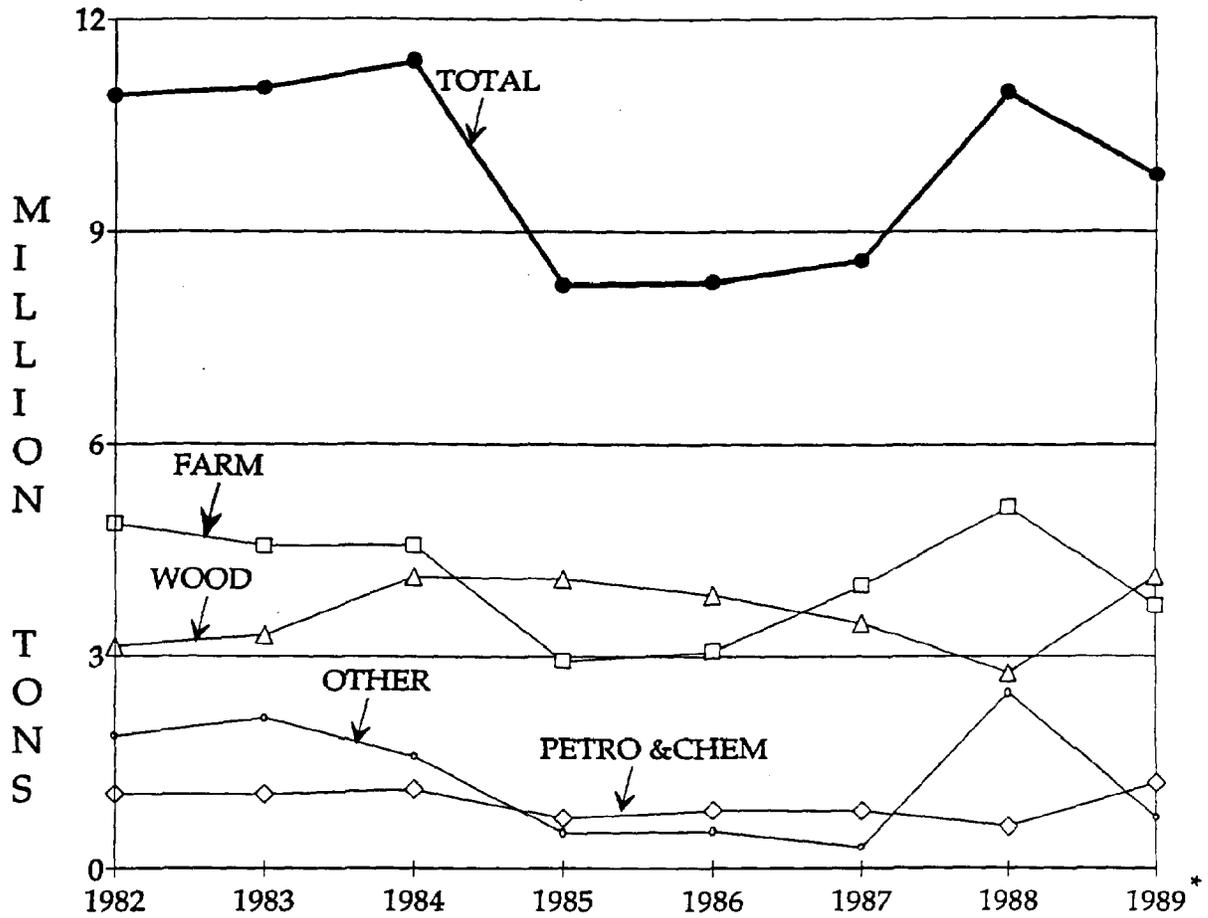
COLUMBIA RIVER - TOTAL

(1982 - 1989 ; BY COMMODITY)



YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	19.70	21.19	20.89	17.15	17.64	16.59	18.07	17.71
FARM	5.49	5.33	5.52	3.82	3.96	4.94	6.32	5.56
WOOD	5.98	6.78	7.40	6.91	6.86	5.48	3.88	5.49
PETRO & CHEM	6.27	5.77	5.97	4.77	5.38	4.73	4.50	4.88
SAND	0.95	1.54	0.61	1.27	1.18	1.17	2.15	1.47
OTHER	1.01	1.77	1.39	0.38	0.26	0.27	1.22	0.31

COLUMBIA RIVER - DOWNBOUND (1982 - 1989 ; BY COMMODITY)



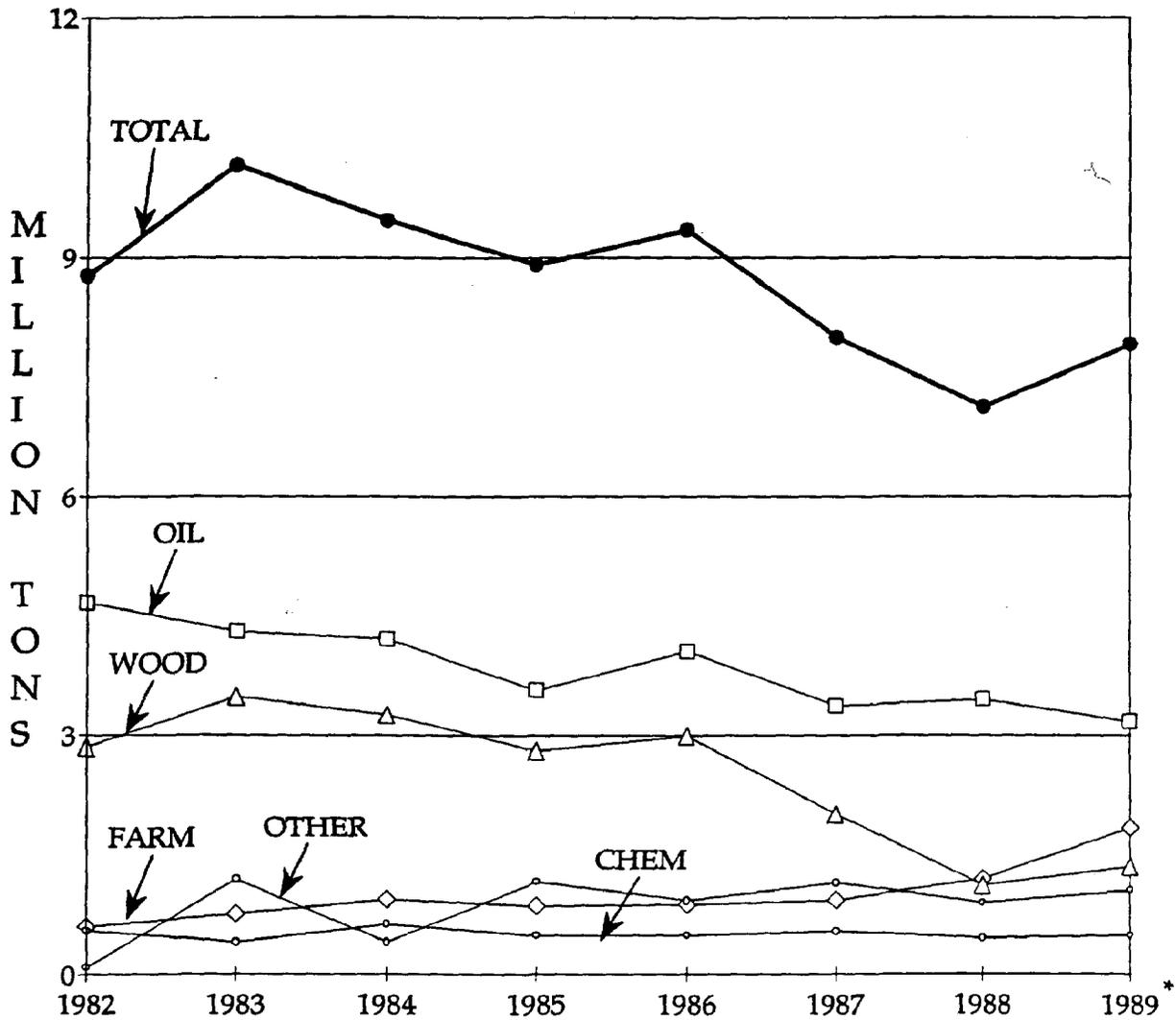
YEAR	1982	1983	1984	1985	1986	1987	1988	1989*
TOTAL	10.93	11.03	11.41	8.25	8.29	8.59	10.95	9.79
WOOD	3.14	3.30	4.14	4.10	3.87	3.47	2.76	4.14
FARM	4.88	4.56	4.57	2.94	3.07	4.01	5.12	3.72
PETRO & CHEM	1.05	1.05	1.12	0.71	0.82	0.81	0.59	1.21
OTHER	1.86	2.12	1.58	0.50	0.53	0.30	2.48	0.72

6-27-1990

* ESTIMATED

COLUMBLA RIVER - UPBOUND

(1982 -1989 ; BY COMMODITY)

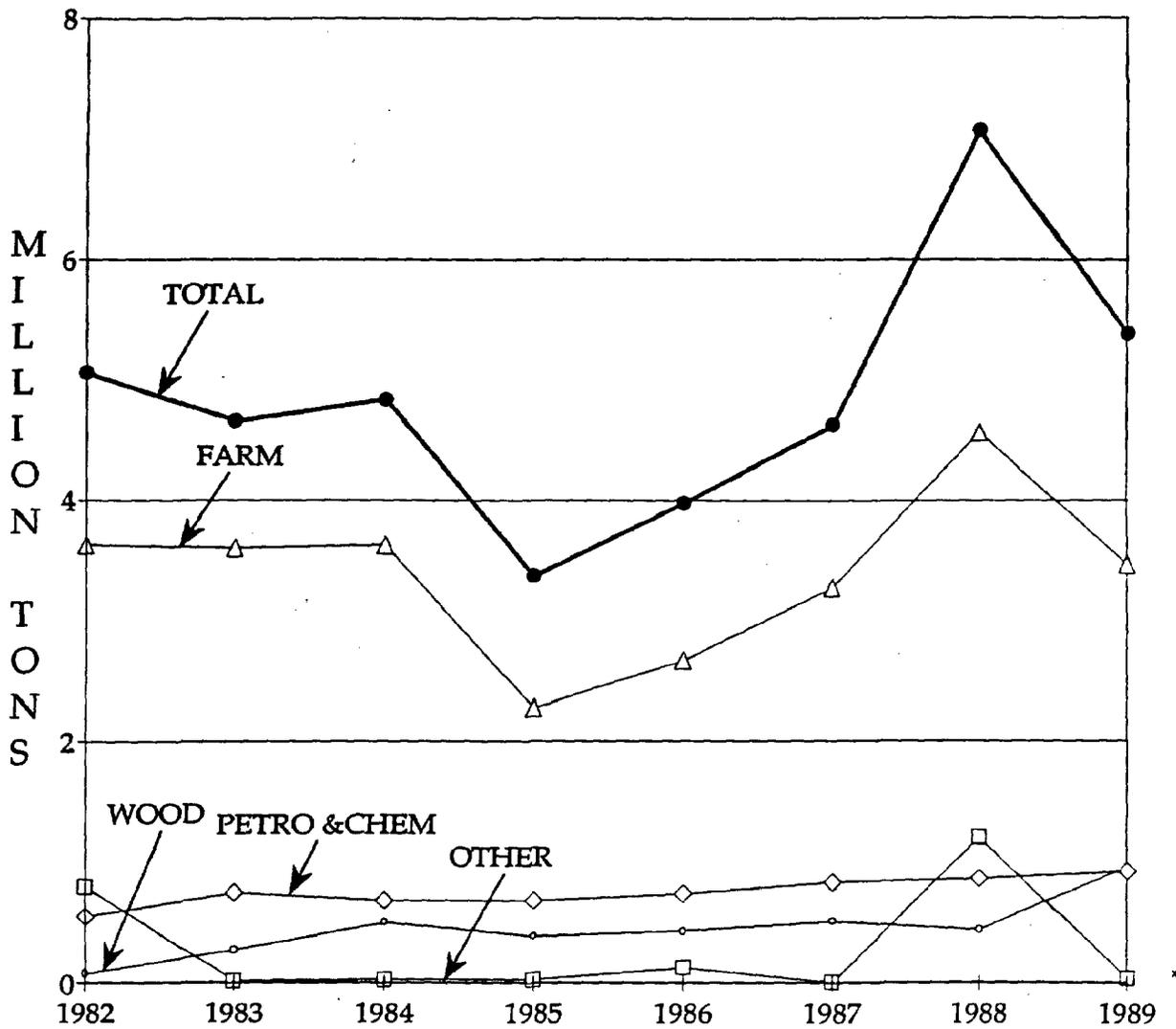


YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	8.77	10.16	9.47	8.91	9.35	8.00	7.13	7.92
OIL	4.66	4.30	4.21	3.57	4.06	3.37	3.45	3.17
FARM	0.61	0.77	0.95	0.87	0.88	0.93	1.20	1.84
WOOD	2.85	3.48	3.26	2.81	2.99	2.01	1.12	1.36
OTHER	0.09	1.20	0.41	1.17	0.93	1.15	0.90	1.06
CHEM	0.56	0.41	0.64	0.49	0.49	0.54	0.46	0.49

6-27-1990

* ESTIMATED

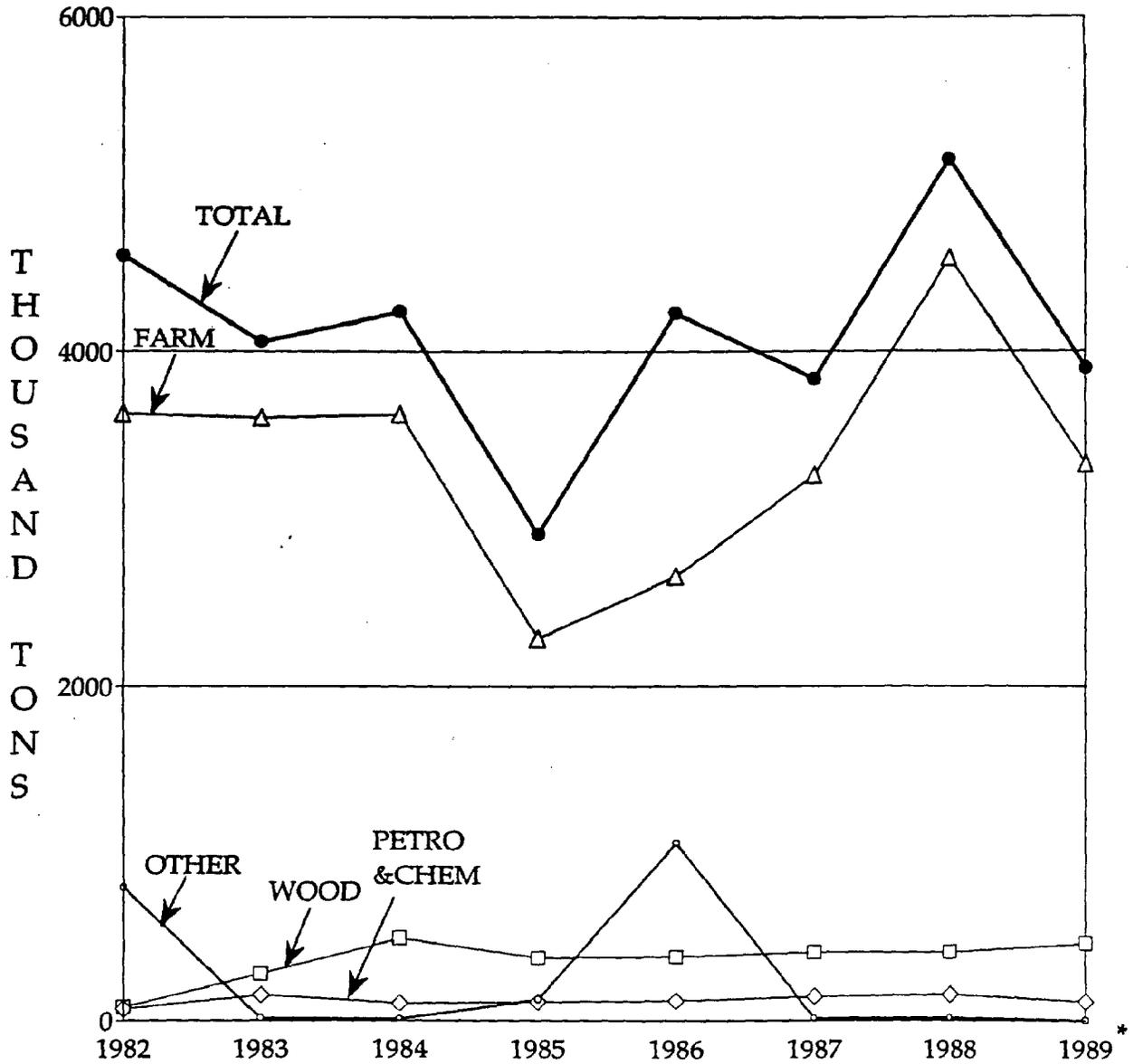
SNAKE RIVER - TOTAL (1982 - 1989 ; BY COMMODITY)



YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	5.06	4.66	4.84	3.38	3.98	4.63	7.07	5.39
FARM	3.63	3.61	3.63	2.28	2.68	3.28	4.57	3.47
WOOD	0.08	0.28	0.50	0.39	0.43	0.51	0.44	0.96
PETRO & CHEM	0.55	0.75	0.68	0.68	0.74	.83	0.86	0.92
OTHER	0.80	0.02	0.03	0.03	0.13	0.01	1.20	0.04

SNAKE RIVER - DOWNBOUND

(1982 - 1989 ; BY COMMODITY)



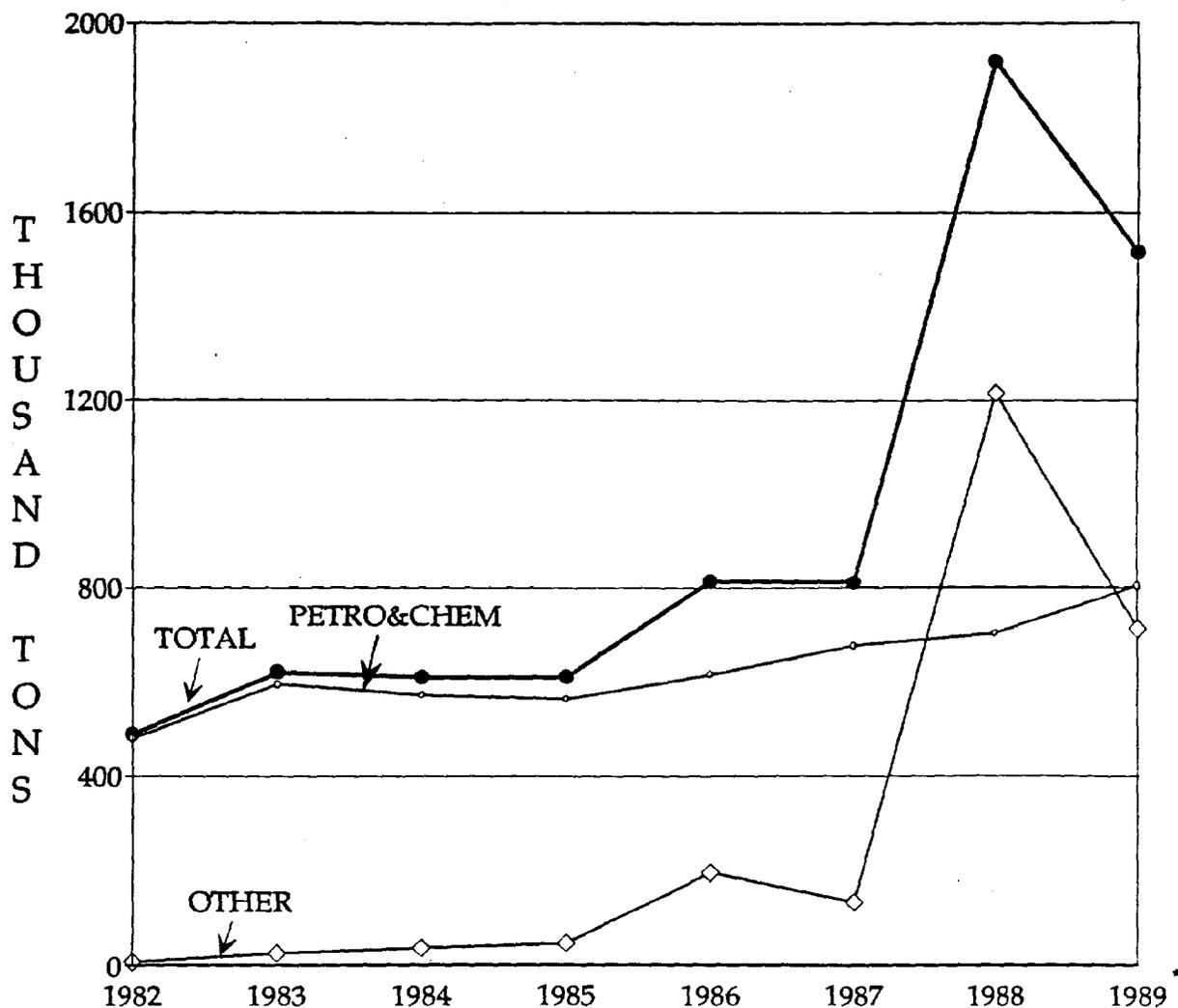
YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	4577	4057	4241	2907	4230	3834	5149	3901
FARM	3628	3604	3625	2282	2658	3258	4562	3322
WOOD	81	281	495	380	385	412	410	463
PETRO & CHEM	72	155	107	116	123	149	160	116
OTHER	796	17	13	130	1063	14	17	0

6-27-1990

* ESTIMATED

SNAKE RIVER - UPBOUND

(1982 - 1989 ; BY COMMODITY)



YEAR	1982	1983	1984	1985	1986	1987	1988	1989 *
TOTAL	489	622	611	612	813	811	1919	1515
PETRO & CHEM	481	596	573	564	616	677	703	803
OTHER	8	26	38	48	197	134	1216	712

6-27-1990

* ESTIMATED

APPENDIX A

Explanation of Commodity Groups

COAL

OIL: Crude petroleum and petroleum products.

CHEMICALS

METAL: Metals, metal products, scrap, and metal ores.

SAND: Non-metallic products including; sand, gravel, unworked stone, sulphur, and gypsum.

FARM: Farm products, unprocessed foods, and flour.

MISCELLANEOUS: All other materials: fish, wood and wood products, forest products, stone, clay, glass, concrete, sea shells, manufactured equipment and machinery, leather, tobacco, processed foods, water, textiles, instruments, and ordnance.

Sometimes WOOD is a separate category.

WOOD: Wood and wood products, paper and paper products.

OTHER: When several categories are too small to be reported or graphed separately, they are combined into a separate residual category.

NOAA COASTAL SERVICES CENTER LIBRARY



3 6668 14104 0354

